

Thr Ala Arg Asn Ala Leu Glu Glu Asn Val Phe Met Glu Asn Thr Asn  
                   355                                  360                                  365

Met Pro Glu Val Thr Ile Ser Glu Asn Thr Asn Tyr Asn His Pro Pro  
                   370                                  375                                  380

Glu Ala Asp Ser Xaa Gly Thr Ala Phe Asn Leu Gly Pro Thr Val Lys  
                   385                                  390                                  395                                  400

Gln Thr Glu Thr

<210> 2109

<211> 45

<212> PRT

<213> Homo sapiens

<400> 2109

Met Val Thr Ser Gly Met Leu Val Phe Ser Ile Lys Thr Phe Ser Ser  
                   1                                  5                                  10                                  15

Lys Ala Phe Leu Ala Val Val Ser Phe Ile Leu Val Val Ser Ile Lys  
                                   20                                  25                                  30

Cys Ser Glu Gly Ala Asp Thr Ser Arg Lys Gly Phe Ser  
                   35                                  40                                  45

<210> 2110

<211> 45

<212> PRT

<213> Homo sapiens

<400> 2110

Met Val Thr Ser Gly Met Leu Val Phe Ser Ile Lys Thr Phe Ser Ser  
                   1                                  5                                  10                                  15

Lys Ala Phe Leu Ala Val Val Ser Phe Ile Leu Val Val Ser Ile Lys  
                                   20                                  25                                  30

Cys Ser Glu Gly Ala Asp Thr Ser Arg Lys Gly Phe Ser  
                   35                                  40                                  45

<210> 2111

<211> 257

<212> PRT

<213> Homo sapiens

<400> 2111

Met Glu Met Ile Ile Gln Phe Gly Phe Val Thr Leu Phe Val Ala Ser  
                   1                                  5                                  10                                  15

Phe Pro Leu Ala Pro Leu Phe Ala Leu Leu Asn Asn Ile Ile Glu Ile  
                                   20                                  25                                  30

Arg Leu Asp Ala Lys Lys Phe Val Thr Glu Leu Arg Arg Pro Val Ala  
 35 40 45  
 Val Arg Ala Lys Asp Ile Gly Ile Trp Tyr Asn Ile Leu Arg Gly Ile  
 50 55 60  
 Gly Lys Leu Ala Val Ile Ile Asn Ala Phe Val Ile Ser Phe Thr Ser  
 65 70 75 80  
 Asp Phe Ile Pro Arg Leu Val Tyr Leu Tyr Met Tyr Ser Lys Asn Gly  
 85 90 95  
 Thr Met His Gly Phe Val Asn His Thr Leu Ser Ser Phe Asn Val Ser  
 100 105 110  
 Asp Phe Gln Asn Gly Thr Ala Pro Asn Asp Pro Leu Asp Leu Gly Tyr  
 115 120 125  
 Glu Val Gln Ile Cys Arg Tyr Lys Asp Tyr Arg Glu Pro Pro Trp Ser  
 130 135 140  
 Glu Asn Lys Tyr Asp Ile Ser Lys Asp Phe Trp Ala Val Leu Ala Ala  
 145 150 155 160  
 Arg Leu Ala Phe Val Ile Val Phe Gln Asn Leu Val Met Phe Met Ser  
 165 170 175  
 Asp Phe Val Asp Trp Val Ile Pro Asp Ile Pro Lys Asp Ile Ser Gln  
 180 185 190  
 Gln Ile His Lys Glu Lys Val Leu Met Val Glu Leu Phe Met Arg Glu  
 195 200 205  
 Glu Gln Asp Lys Gln Gln Leu Leu Glu Thr Trp Met Glu Lys Glu Arg  
 210 215 220  
 Gln Lys Asp Glu Pro Pro Cys Asn His His Asn Thr Lys Ala Cys Pro  
 225 230 235 240  
 Asp Ser Leu Gly Ser Pro Ala Pro Ser His Ala Tyr His Gly Gly Val  
 245 250 255

Leu

<210> 2112  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 2112  
 Met Thr His Gly Cys Leu Ser Leu Ala Ser Met Ala Ala Gly Leu Gly  
 1 5 10 15  
 Ser Val Ser Leu Phe Leu Phe Val Gln Trp Thr Pro Thr Thr Ala  
 20 25 30

Ser Thr Gly Glu Thr Pro Ser Ser Trp Gln Lys Thr Thr Ser Cys Val  
                   35                  40                  45

Arg Arg  
       50

<210> 2113  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 2113  
 Met Thr His Gly Cys Leu Ser Leu Ala Ser Met Ala Ala Gly Leu Gly  
       1                  5                  10                  15

Ser Val Ser Leu Phe Leu Phe Val Gln Gln Trp Thr Pro Thr Thr Ala  
                   20                  25                  30

Ser Thr Gly Glu Thr Pro Ser Ser Trp Gln Lys Thr Thr Ser Cys Val  
                   35                  40                  45

Arg Arg  
       50

<210> 2114  
 <211> 74  
 <212> PRT  
 <213> Homo sapiens

<400> 2114  
 Met Val Leu Leu Leu Leu Leu Leu Gln Lys Ile Pro Gly Thr Pro  
       1                  5                  10                  15

Leu Phe Gln Pro Gly Phe Leu Gly Trp Ala Gln Glu Ser Cys Gln Ile  
                   20                  25                  30

Gln Ser Tyr Val Gly Ser Lys Leu Pro Leu Cys Cys Phe Cys Gln Ala  
                   35                  40                  45

Arg Cys Gly His Ser Lys Phe Ile Cys Val Asn Lys Arg Lys Glu Glu  
                   50                  55                  60

Pro Ser Gly Cys Asn Arg Thr Asp Ser Ser  
       65                  70

<210> 2115  
 <211> 94  
 <212> PRT  
 <213> Homo sapiens

<400> 2115  
 Met Trp Pro Trp Trp Leu Met Val Glu Arg Thr Val Val Leu Leu Leu  
       1                  5                  10                  15

Ile Thr Tyr Leu Val Pro Val Gly Gly Ser Ala Val Gly Pro Pro Gly  
                   20                  25                  30

Pro Gly Cys Asn Val Ser Thr Ser Pro Pro Pro Pro Ala Thr Arg Cys  
                   35                  40                  45

Pro Asp Glu Ser Glu Leu Tyr Arg Asp Pro Gly Glu Ala Pro Leu Glu  
                   50                  55                  60

Ala Asp Gln Ala Glu Arg Gly Ala Ala His Glu Gly Gly His Pro Gly  
                   65                  70                  75                  80

Arg Asp Pro Trp Gly Ala Arg Arg Gly Pro Pro Arg Cys Gly  
                   85                  90

&lt;210&gt; 2116

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2116

Met Ala Ile Cys Ser Cys Gln Cys Pro Ala Ala Met Ala Phe Cys Phe  
   1                  5                  10                  15

Leu Glu Thr Leu Trp Trp Glu Phe Thr Ala Ser Tyr Asp Thr Thr Cys  
                   20                  25                  30

Ile Gly Leu Ala Ser Arg Pro Tyr Ala Phe Leu Glu Phe Asp Ser Ile  
                   35                  40                  45

Ile Gln Lys Val Lys Trp His Phe Asn Tyr Val Ser Ser Ser Gln Met  
                   50                  55                  60

Glu Cys Ser Leu Glu Lys Ile Gln Glu Glu Leu Lys Leu Gln Pro Pro  
                   65                  70                  75                  80

Ala Val Leu Thr Leu Glu Asp Thr Asp Val Ala Asn Gly Val Met Asn  
                   85                  90                  95

Gly His Thr Pro Met His Leu Glu Pro Ala Pro Asn Phe Arg Met Glu  
                   100                  105                  110

Pro Val Thr Ala Leu Gly Ile Leu Ser Leu Ile Leu Asn Ile Met Cys  
                   115                  120                  125

Ala Ala Leu Asn Leu Ile Arg Gly Val His Leu Ala Glu His Ser Leu  
                   130                  135                  140

Gln Val Ala His Glu Glu Ile Gly Asn Ile Leu Ala Phe Leu Val Pro  
                   145                  150                  155                  160

Phe Val Ala Cys Ile Phe Gln Asp Pro Arg Ser Trp Phe Cys Trp Leu  
                   165                  170                  175

Asp Gln Thr Ser  
                   180



<210> 2117  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 2117  
 Met Trp Pro Arg Met Leu Ala Phe Ser Thr Trp Leu Glu Trp Leu Leu  
   1                  5                  10                  15  
 Phe Ser Pro Leu Pro Gln Ser Val Gly Cys Pro Gly Pro Leu Glu Phe  
                   20                  25                  30  
 Tyr Cys Val Gln Asp Arg Arg Pro Pro Ser Leu Pro Asp Gly Ala Asp  
                   35                  40                  45  
 His Phe Ser Ser Pro Thr Arg Ile Thr Ser Ser Ser Ile Ser Pro Ala  
   50                  55                  60  
 Leu Ser Leu Gln Ala Pro Glu Ala Gly Gly Phe Leu Ser Ile Pro Gly  
   65                  70                  75                  80

<210> 2118  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 2118  
 Met His Asp Val Leu Phe Phe Leu Ser Phe Ser Leu Val Ala Cys Val  
   1                  5                  10                  15  
 Lys Ala Gly Met Leu  
                   20

<210> 2119  
 <211> 291  
 <212> PRT  
 <213> Homo sapiens

<400> 2119  
 Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile  
   1                  5                  10                  15  
 Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile  
                   20                  25                  30  
 Ile Ala Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Cys Cys  
                   35                  40                  45  
 Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly  
   50                  55                  60  
 Leu Arg Gln Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val

65		70		75		80
Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu						
	85			90		95
Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe						
	100		105			110
Pro Leu Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu						
	115		120			125
Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr						
	130		135			140
Leu Ala Val Ser Leu Phe Ser Pro Ser His Val Leu Glu Ala Gln Leu						
	145		150		155	160
Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr						
	165		170			175
Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala						
	180		185			190
Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe						
	195		200			205
Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln						
	210		215			220
Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Met						
	225		230		235	240
Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Asn Lys Glu Leu Lys Ile						
	245		250			255
Leu Ser Met Ile Leu Pro Leu Ile Tyr Leu Cys Leu Asn Pro Thr Val						
	260		265			270
Ser Gln Asn Gln Asn Ser Phe Tyr Leu Arg Pro Gly Phe Leu Ser Val						
	275		280			285
Leu Phe Phe						
	290					

&lt;210&gt; 2120

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2120

Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile
1 5 10 15

Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile
20 25 30

Ile Ala Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Leu Cys Cys
35 40 45

Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly  
 50 55 60  
 Leu Arg Glu Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val  
 65 70 75 80  
 Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu  
 85 90 95  
 Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe  
 100 105 110  
 Pro Leu Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu  
 115 120 125  
 Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr  
 130 135 140  
 Leu Ala Val Ser Leu Phe Ser Pro Ser His Val Leu Glu Ala Gln Leu  
 145 150 155 160  
 Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr  
 165 170 175  
 Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala  
 180 185 190  
 Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe  
 195 200 205  
 Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln  
 210 215 220  
 Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Val  
 225 230 235 240  
 Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Phe Ile Ser Gly Phe Gln  
 245 250 255

Ser

<210> 2121  
 <211> 257  
 <212> PRT  
 <213> Homo sapiens

<400> 2121  
 Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile  
 1 5 10 15  
 Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile  
 20 25 30  
 Ile Ala Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Leu Cys Cys  
 35 40 45

Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly  
 50 55 60  
 Leu Arg Glu Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val  
 65 70 75 80  
 Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu  
 85 90 95  
 Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe  
 100 105 110  
 Pro Leu Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu  
 115 120 125  
 Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr  
 130 135 140  
 Leu Ala Val Ser Leu Phe Ser Pro Ser His Val Leu Glu Ala Gln Leu  
 145 150 155 160  
 Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr  
 165 170 175  
 Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala  
 180 185 190  
 Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe  
 195 200 205  
 Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln  
 210 215 220  
 Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Val  
 225 230 235 240  
 Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Phe Ile Ser Gly Phe Gln  
 245 250 255  
 Ser

&lt;210&gt; 2122

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (284)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2122

Met Asp Phe Ile Gln His Leu Gly Val Cys Cys Leu Val Ala Leu Ile  
 1 5 10 15

Ser Val Gly Leu Leu Ser Val Ala Ala Cys Trp Phe Leu Pro Ser Ile  
 20 25 30

Ile Ala Ala Ala Ala Ser Trp Ile Ile Thr Cys Val Leu Leu Cys Cys  
                   35                                  40                                  45

Ser Lys His Ala Arg Cys Phe Ile Leu Leu Val Phe Leu Ser Cys Gly  
           50                                  55                                  60

Leu Arg Glu Gly Arg Asn Ala Leu Ile Ala Ala Gly Thr Gly Ile Val  
   65                                  70                                  75                                  80

Ile Leu Gly His Val Glu Asn Ile Phe His Asn Phe Lys Gly Leu Leu  
                                   85                                  90                                  95

Asp Gly Met Thr Cys Asn Leu Arg Ala Lys Ser Phe Ser Ile His Phe  
                   100                                  105                                  110

Pro Leu Leu Lys Lys Tyr Ile Glu Ala Ile Gln Trp Ile Tyr Gly Leu  
           115                                  120                                  125

Ala Thr Pro Leu Ser Val Phe Asp Asp Leu Val Ser Trp Asn Gln Thr  
   130                                  135                                  140

Leu Ala Val Ser Leu Phe Ser Pro Ser His Val Leu Glu Ala Gln Leu  
  145                                  150                                  155                                  160

Asn Asp Ser Lys Gly Glu Val Leu Ser Val Leu Tyr Gln Met Ala Thr  
                   165                                  170                                  175

Thr Thr Glu Val Leu Ser Ser Leu Gly Gln Lys Leu Leu Ala Phe Ala  
           180                                  185                                  190

Gly Leu Ser Leu Val Leu Leu Gly Thr Gly Leu Phe Met Lys Arg Phe  
   195                                  200                                  205

Leu Gly Pro Cys Gly Trp Lys Tyr Glu Asn Ile Tyr Ile Thr Arg Gln  
   210                                  215                                  220

Phe Val Gln Phe Asp Glu Arg Glu Arg His Gln Gln Arg Pro Cys Val  
  225                                  230                                  235                                  240

Leu Pro Leu Asn Lys Glu Glu Arg Arg Lys Tyr Val Ile Ile Pro Thr  
                   245                                  250                                  255

Phe Trp Pro Thr Pro Lys Glu Arg Lys Asn Leu Gly Leu Phe Phe Leu  
           260                                  265                                  270

Pro Ile Leu Ile His Leu Cys Ile Trp Val Leu Xaa Ala Ala Val Asp  
           275                                  280                                  285

Tyr Leu Leu Tyr Arg Leu Ile Phe Ser Val Ser Lys Gln Phe Gln Ser  
   290                                  295                                  300

Leu Pro Gly Phe Glu Val His Leu Lys Leu His Gly Glu Lys Gln Gly  
  305                                  310                                  315                                  320

Thr Gln Asp Ile Ile His Asp Ser Ser Phe Asn Ile Ser Val Phe Glu  
           325                                  330                                  335

Pro Asn Cys Ile Pro Lys Pro Trp Gln Ala Leu Lys Leu Leu Ala His  
           340                                  345                                  350

&lt;210&gt; 2123

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2123

Met Val Ser Cys Ser Ile Leu Ala Leu Thr His Leu Leu Phe Glu Phe  
 1 5 10 15

Lys Gly Leu Met Gly Thr Ser Thr Val Glu Gln Leu Leu Glu Asn Val  
 20 25 30

Cys Leu Leu Leu Ala Ser Arg Thr Arg Asp Val Val Lys Ser Ala Leu  
 35 40 45

Gly Phe Ile Lys Val Ala Val Thr Val Met Asp Val Ala His Leu Ala  
 50 55 60

Lys His Val Gln Leu Val Met Glu Ala Ile Gly Lys Leu Ser Asp Asp  
 65 70 75 80

Met Arg Arg His Phe Arg Met Lys Leu Arg Asn Leu Phe Thr Lys Phe  
 85 90 95

Ile Arg Lys Phe Gly Phe Glu Leu Val Lys Arg Leu Leu Pro Glu Glu  
 100 105 110

Tyr His Arg Val Leu Val Asn Ile Arg Lys Ala Glu Ala Arg Ala Lys  
 115 120 125

Arg His Arg Ala Leu Ser Gln Ala Ala Val Glu Glu Glu Glu Glu  
 130 135 140

Glu Glu Glu Glu Glu Pro Ala Gln Gly Lys Gly Asp Ser Ile Glu Glu  
 145 150 155 160

Ile Leu Ala Asp Ser Glu Asp Glu Glu Asp Asn Glu Glu Glu Glu Arg  
 165 170 175

Ser Arg Gly Lys Glu Gln Arg Lys Leu Ala Arg Gln Arg Ser Arg Ala  
 180 185 190

Trp Leu Lys Glu Gly Gly Gly Asp Glu Pro Leu Asn Phe Leu Asp Pro  
 195 200 205

Lys Val Ala Gln Arg Val Leu Ala Thr Gln Pro Gly Pro Ala Gly Gln  
 210 215 220

Glu Glu Gly Pro Gln Leu Gln Gly Glu Arg Arg Trp Pro Ala Asp His  
 225 230 235 240

Lys Gly Gly Gly Arg Arg Gln Gln Asp Gly Gly Arg Gly Arg Cys Gln  
 245 250 255

Arg Arg Arg

&lt;210&gt; 2124

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2124

Met Leu Trp Leu Gly Thr Ser Leu Ile Phe Ser Ser Phe Ser Ala Ser  
 1 5 10 15

Phe Asp Gly Val Pro Phe Leu Ser Ser Trp Leu Phe Trp Ser Ser Gly  
 20 25 30

Ser Ser Pro Asn Ser Leu Ile Pro Pro Phe  
 35 40

&lt;210&gt; 2125

&lt;211&gt; 45

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2125

Met Tyr Pro Pro Val Ala Pro Ser Phe Trp Gly Cys Val Cys Phe Phe  
 1 5 10 15

Trp Ala Val Pro Leu Val Cys Cys Arg Asp Ser Trp Lys Gly Leu Ser  
 20 25 30

Leu Phe Val Gly Ser Gly Gly Leu Gly Leu Val Glu His  
 35 40 45

&lt;210&gt; 2126

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2126

Met Trp Pro Phe Leu His Leu Leu Asn Met Pro Phe Thr Leu Thr Gln  
 1 5 10 15

Val Val Ala Ser Pro Ser Ser Cys Ser Asn Trp Lys Pro Gln His Pro  
 20 25 30

Glu Met Pro Pro Pro Gln Ile His Cys Thr His Val Cys Leu Cys Met  
 35 40 45

Arg Val Cys Ala Arg Val  
 50

&lt;210&gt; 2127

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2127

Met Leu Met Leu Leu Thr Leu Leu Val Leu Gly Met Val Trp Val Ala  
 1 5 10 15

Ser Ala Ile Val Asp Lys Asn Lys Ala Asn Arg Glu Ser Leu Tyr Asp  
 20 25 30

Phe Trp Glu Tyr Tyr Leu Pro Tyr Leu Tyr Ser Cys Ile Ser Phe Leu  
 35 40 45

Gly Val Leu Leu Leu Leu Gly Glu Cys Thr Gly Ser Gly Arg Glu Trp  
 50 55 60

Ala Gly Ser Leu Asp Gln Ser Asn Gln Ala Arg Arg Lys Gly Asn Gly  
 65 70 75 80

Gly His Val Arg Glu Gly Val Glu Ser Arg Val Trp Gln Val Thr Gly  
 85 90 95

Ser Cys Pro Tyr Ser Val Tyr Ser Thr Gly Ser Arg Pro His Val Leu  
 100 105 110

Arg His Trp Glu Ala Ala Ser Gln Ala Pro Ala Ala Gly Arg Pro Gly  
 115 120 125

Gly Ala Ala Val Leu Leu Ser Leu  
 130 135

&lt;210&gt; 2128

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2128

Met His Trp Thr Phe Ser Ser Ser Leu Gly Cys Leu Tyr His Phe Ser  
 1 5 10 15

Leu Ser Phe Ser Gly Leu His Thr Val Leu Lys Ser Ser Pro Ser Ser  
 20 25 30

Arg Phe Leu Leu Pro Cys Ser Ser Gln Val Thr Gln Pro Ser Pro Val  
 35 40 45

Gly Gln Pro Arg Leu Val Val Gln Leu Pro Pro Val Lys Val Ile Gly  
 50 55 60

His Arg Thr Gly Gln Cys Arg Gly Pro Gly  
 65 70

&lt;210&gt; 2129

&lt;211&gt; 253

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 2129

Met Asp Asn Arg Phe Ala Thr Ala Phe Val Ile Ala Cys Val Leu Ser  
 1 5 10 15

Leu Ile Ser Thr Ile Tyr Met Ala Ala Ser Ile Gly Thr Asp Phe Trp  
 20 25 30

Tyr Glu Tyr Arg Ser Pro Val Gln Glu Asn Ser Ser Asp Leu Asn Lys  
 35 40 45

Ser Ile Trp Asp Glu Phe Ile Ser Asp Glu Ala Asp Glu Lys Thr Tyr  
 50 55 60

Asn Asp Ala Leu Phe Arg Tyr Asn Gly Thr Val Gly Leu Trp Arg Arg  
 65 70 75 80

Cys Ile Thr Ile Pro Lys Asn Met His Trp Tyr Ser Pro Pro Glu Arg  
 85 90 95

Thr Glu Ser Phe Asp Val Val Thr Lys Cys Val Ser Phe Thr Leu Thr  
 100 105 110

Glu Gln Phe Met Glu Lys Phe Val Asp Pro Gly Asn His Asn Ser Gly  
 115 120 125

Ile Asp Leu Leu Arg Thr Tyr Leu Trp Arg Cys Gln Phe Leu Leu Pro  
 130 135 140

Phe Val Ser Leu Gly Leu Met Cys Phe Gly Ala Leu Ile Gly Leu Cys  
 145 150 155 160

Ala Cys Ile Cys Arg Ser Leu Tyr Pro Thr Ile Ala Thr Gly Ile Leu  
 165 170 175

His Leu Leu Ala Gly Leu Cys Thr Leu Gly Ser Val Ser Cys Tyr Val  
 180 185 190

Ala Gly Ile Glu Leu Leu His Gln Lys Leu Glu Leu Pro Asp Asn Val  
 195 200 205

Ser Gly Glu Phe Gly Trp Ser Phe Cys Leu Ala Cys Val Ser Ala Pro  
 210 215 220

Leu Gln Phe Met Ala Ser Ala Leu Phe Ile Trp Ala Ala His Thr Asn  
 225 230 235 240

Arg Lys Glu Tyr Thr Leu Met Lys Ala Tyr Arg Val Ala  
 245 250

&lt;210&gt; 2130

&lt;211&gt; 253

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2130

Met Asp Asn Arg Phe Ala Thr Ala Phe Val Ile Ala Cys Val Leu Ser

1	5	10	15
Leu Ile Ser Thr Ile Tyr Met Ala Ala Ser Ile Gly Thr Asp Phe Trp	20	25	30
Tyr Glu Tyr Arg Ser Pro Val Gln Glu Asn Ser Ser Asp Leu Asn Lys	35	40	45
Ser Ile Trp Asp Glu Phe Ile Ser Asp Glu Ala Asp Glu Lys Thr Tyr	50	55	60
Asn Asp Ala Leu Phe Arg Tyr Asn Gly Thr Val Gly Leu Trp Arg Arg	65	70	75
Cys Ile Thr Ile Pro Lys Asn Met His Trp Tyr Ser Pro Pro Glu Arg	85	90	95
Thr Glu Ser Phe Asp Val Val Thr Lys Cys Val Ser Phe Thr Leu Thr	100	105	110
Glu Gln Phe Met Glu Lys Phe Val Asp Pro Gly Asn His Asn Ser Gly	115	120	125
Ile Asp Leu Leu Arg Thr Tyr Leu Trp Arg Cys Gln Phe Leu Leu Pro	130	135	140
Phe Val Ser Leu Gly Leu Met Cys Phe Gly Ala Leu Ile Gly Leu Cys	145	150	155
Ala Cys Ile Cys Arg Ser Leu Tyr Pro Thr Ile Ala Thr Gly Ile Leu	165	170	175
His Leu Leu Ala Gly Leu Cys Thr Leu Gly Ser Val Ser Cys Tyr Val	180	185	190
Ala Gly Ile Glu Leu Leu His Gln Lys Leu Glu Leu Pro Asp Asn Val	195	200	205
Ser Gly Glu Phe Gly Trp Ser Phe Cys Leu Ala Cys Val Ser Ala Pro	210	215	220
Leu Gln Phe Met Ala Ser Ala Leu Phe Ile Trp Ala Ala His Thr Asn	225	230	235
Arg Lys Glu Tyr Thr Leu Met Lys Ala Tyr Arg Val Ala	245	250	

&lt;210&gt; 2131

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2131

Met Phe Phe Gln Gly Trp Val Asp Arg Trp Leu Leu Gly Cys Leu Ala	1	5	10	15
---	---	---	----	----

Pro Gly Gly Phe Ala Ile His Glu Ala Arg Ala Gly Asn Thr Val Ser	20	25	30
---	----	----	----

Leu Pro Met Val Asp Pro Cys Glu Cys Gln Glu Ala Ser Ser Ser Val  
                   35                  40                  45

Leu Glu Met Ile Ser Ala Thr Ile Leu  
           50                  55

<210> 2132

<211> 41

<212> PRT

<213> Homo sapiens

<400> 2132

Met Asn Leu Met Val Arg Leu Leu Ala Leu Gly Leu Ile Ser Gly Met  
       1                  5                  10                  15

Met Ser Asn Ile Thr Gln Ser His Ser Ser Lys Ile Ser Ala Phe Gly  
                   20                  25                  30

Ile Phe Ile Gly Pro Glu Gln Phe Leu  
           35                  40

<210> 2133

<211> 51

<212> PRT

<213> Homo sapiens

<400> 2133

Met Ser Leu Glu Pro Ser Thr Ser Ser Phe Asn Ile Leu Leu Phe Pro  
       1                  5                  10                  15

Ala Phe Leu Arg Val Phe Gly Trp Ala Leu Gly Trp Met Pro Trp Glu  
                   20                  25                  30

Tyr Leu Tyr Leu Ser Ser Lys Val Thr Asn Gly Glu Thr Gly Thr Gln  
           35                  40                  45

Arg Gly Thr  
       50

<210> 2134

<211> 60

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2134

Met Phe Phe Pro Cys Leu Pro Thr Leu Xaa Leu Arg Ile Leu His Ser  
 1 5 10 15

Gly Trp Val Gly Leu Phe Leu Leu Ile Ser Ser Arg Ala Pro Ser Ser  
 20 25 30

Ser Leu Ala Trp Lys His Gly Pro Gly Xaa Leu Trp Trp Pro Arg Arg  
 35 40 45

Pro Leu Arg Ser Cys Thr Gly Leu Ala Ser Cys Gly  
 50 55 60

&lt;210&gt; 2135

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2135

Met Phe Phe Pro Cys Leu Pro Thr Leu Xaa Leu Arg Ile Leu His Ser  
 1 5 10 15

Gly Trp Val Gly Leu Phe Leu Leu Ile Ser Ser Arg Ala Pro Ser Ser  
 20 25 30

Ser Leu Ala Trp Lys His Gly Pro Gly Glu Leu Trp Trp Pro Arg Xaa  
 35 40 45

Pro Leu Arg Ser Cys Thr Gly Leu Ala Ser Cys Gly  
 50 55 60

&lt;210&gt; 2136

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2136

Met Ser Pro His Gln Pro Met Gln Val Ser Ser Ser Lys Thr Ile Leu  
 1 5 10 15

Trp Leu Val Leu Ser Cys Leu Cys Pro Ser Ser Pro His Pro Val Ile  
 20 25 30

Ser Gly Leu Pro Gln Trp Tyr Ile Gly Val Leu Ala Gly Ile Val Pro  
 35 40 45

Val Ala Pro Ile Arg Pro Gly Asp Ser Gly Leu Asp Leu Gln Arg Glu  
50 55 60

Gly Pro Gln Pro Ile Leu Ser Gln Gly Leu Asn Arg Arg Thr  
65 70 75

<210> 2137

<211> 78

<212> PRT

<213> Homo sapiens

<400> 2137

Met Ser Pro His Gln Pro Met Gln Val Ser Ser Ser Lys Thr Ile Leu  
1 5 10 15

Trp Leu Val Leu Ser Cys Leu Cys Pro Ser Ser Pro His Pro Val Ile  
20 25 30

Ser Gly Leu Pro Gln Trp Tyr Ile Gly Val Leu Ala Gly Ile Val Pro  
35 40 45

Val Ala Pro Ile Arg Pro Gly Asp Ser Gly Leu Asp Leu Gln Arg Glu  
50 55 60

Gly Pro Gln Pro Ile Leu Ser Gln Gly Leu Asn Arg Arg Thr  
65 70 75

<210> 2138

<211> 144

<212> PRT

<213> Homo sapiens

<400> 2138

Met Ser Ala Val Ser Ala Pro Ala Leu Trp Gln Thr Trp Cys Val Pro  
1 5 10 15

Ala Ala Arg Ala Trp Thr Ser Ser Thr Leu Arg His Asp Ala Val Ala  
20 25 30

Arg Pro Asn Pro Ser Thr Ser Leu Thr Pro Gly Leu Leu Thr Ser Ser  
35 40 45

Asp Ser Pro Arg Trp Pro Gly Leu Gln Glu Ala Pro Gly Arg Pro Cys  
50 55 60

Ile Arg Leu Gly Arg Ser Glu Leu Cys Met Tyr Ile Tyr Thr Tyr Ile  
65 70 75 80

Asp Thr Phe Ile Ile Tyr Thr His Ser Leu Tyr Ile Tyr Ile His Cys  
85 90 95

Phe Leu Ala Pro Glu Leu Ile Trp Val Gln Ala His Phe Lys Thr Leu  
100 105 110

Pro Gly Gly Gly Cys Phe Phe Ser Gly Phe Leu Ala Arg Glu Glu Gly

115 120 125  
 Glu Gly Thr Gly Trp Val Phe Ser Leu Lys Arg Glu Ser Arg Arg Phe  
 130 135 140

<210> 2139  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 2139  
 Met Leu His Trp Val Leu Ser Phe Phe Phe Leu Leu Ser Cys Pro Arg  
 1 5 10 15  
 Thr Glu Gly Leu Pro Gly Leu Tyr Cys Pro Gly Cys Ser Gln Cys Pro  
 20 25 30  
 Gly Arg Gly Met Trp Pro Gly Asp Pro Gly Pro Gly Ile Gln Gly Pro  
 35 40 45  
 Gly Leu Asp Leu Arg Thr Gly Met Glu Ala Thr Gly Ala Gln Gln Pro  
 50 55 60  
 Thr Leu Ser Ser Pro His Cys Leu Leu Ser Leu Pro Thr Leu Pro Ala  
 65 70 75 80  
 Arg Ala Val Gln Leu Arg Trp Asp Leu Ser Ile Ser Arg Ala Gly Gly  
 85 90 95  
 Arg Val Ala Val Leu Gly Leu Cys Leu Glu Pro Gly Gly Ser Leu Leu  
 100 105 110  
 Leu Pro Pro Ser Ala Leu Pro Glu Thr Asp Pro Cys Ala Ala Cys Pro  
 115 120 125  
 Pro Cys Pro Phe Val Pro Met Ser Gly Gly Gly Gly Arg Pro Thr Val  
 130 135 140  
 Pro Glu Ala Gly His Gln Pro  
 145 150

<210> 2140  
 <211> 173  
 <212> PRT  
 <213> Homo sapiens

<400> 2140  
 Met Pro Pro Tyr Thr Pro Phe Phe Gly Thr Arg Ala Leu Leu Ser Val  
 1 5 10 15  
 Ser Leu Pro Pro Pro Cys Met Leu His Trp Val Leu Ser Phe Phe Phe  
 20 25 30

Leu Leu Ser Cys Pro Arg Thr Glu Gly Leu Pro Gly Leu Tyr Cys Pro  
           35                          40                          45  
 Gly Cys Ser Gln Cys Pro Gly Arg Gly Met Trp Pro Gly Asp Pro Gly  
           50                          55                          60  
 Pro Gly Ile Gln Gly Pro Gly Leu Asp Leu Arg Thr Gly Met Glu Ala  
           65                          70                          75                          80  
 Thr Gly Ala Gln Gln Pro Thr Leu Ser Ser Pro His Cys Leu Leu Ser  
                           85                          90                          95  
 Leu Pro Thr Leu Pro Ala Arg Ala Val Gln Leu Arg Trp Asp Leu Ser  
                   100                          105                          110  
 Ile Ser Arg Ala Gly Gly Arg Val Ala Val Leu Gly Leu Cys Leu Glu  
           115                          120                          125  
 Pro Gly Gly Ser Leu Leu Leu Pro Pro Ser Ala Leu Pro Glu Thr Asp  
           130                          135                          140  
 Pro Cys Ala Ala Cys Pro Pro Cys Pro Phe Val Pro Met Ser Gly Gly  
           145                          150                          155                          160  
 Gly Gly Arg Pro Thr Val Pro Glu Ala Gly His Gln Pro  
                   165                          170

&lt;210&gt; 2141

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2141

Met Asn Arg Ser Thr Arg Ser Tyr Arg Cys Trp Ala Thr Trp Pro Arg  
   1                          5                          10                          15  
 Leu Gly Trp Ala Leu Pro Cys Cys Met Asn Ser Leu Arg Lys Gly Arg  
           20                          25                          30  
 Lys Phe Ser Gln Ile Thr Thr Ser Leu Met Ala Ser Val Ser Ser Ala  
           35                          40                          45  
 Ser Met Val Ser Arg Arg Arg Arg Pro Leu Pro Lys His Pro Val Thr  
           50                          55                          60  
 Thr Thr Ser Thr Ala Thr Ala Leu Leu Gly Thr Ser Ser Thr Trp Ser  
           65                          70                          75                          80  
 Lys Ser

&lt;210&gt; 2142

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2142

Met Gly Gln Arg Gly Val Phe Leu Leu Ile Leu Asp Ala Phe Ser Val  
 1 5 10 15

Pro Ser Thr Ala Ser Cys Leu Ile Thr Pro Leu Pro Pro Pro His Pro  
 20 25 30

Gln Pro Ser Gln Phe Phe Leu Ala Ser Ala Leu Gln Pro Tyr Leu Gly  
 35 40 45

Lys Glu Glu Trp Val  
 50

&lt;210&gt; 2143

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2143

Met Gly Gln Arg Gly Val Phe Leu Leu Ile Leu Asp Ala Phe Ser Val  
 1 5 10 15

Pro Ser Thr Ala Ser Cys Leu Ile Thr Pro Leu Pro Pro Pro His Pro  
 20 25 30

Gln Pro Ser Gln Phe Phe Leu Ala Ser Ala Leu Gln Pro Tyr Leu Gly  
 35 40 45

Lys Glu Glu Trp Val  
 50

&lt;210&gt; 2144

&lt;211&gt; 53

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2144

Met Gly Gln Arg Gly Val Phe Leu Leu Ile Leu Asp Ala Phe Ser Val  
 1 5 10 15

Pro Ser Thr Ala Ser Cys Leu Ile Thr Pro Leu Pro Pro Pro His Pro  
 20 25 30

Gln Pro Ser Gln Phe Phe Leu Ala Ser Ala Leu Gln Pro Tyr Leu Gly  
 35 40 45

Lys Glu Glu Trp Val  
 50

&lt;210&gt; 2145

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 2145

Met Leu Trp Lys Leu Lys Leu Ser Arg Cys Trp Leu Asp Leu Thr Leu  
 1 5 10 15

Leu Ile Phe Ser Gln Ile Ser His Met Asp Gln Ile Ile Phe Phe Phe  
 20 25 30

Val Val Tyr Pro Ile Leu Asn Asn Ile Phe Ser Leu Asn Tyr Cys Arg  
 35 40 45

Asp Phe Phe Cys Gly Gly Tyr Phe Leu Phe Cys Ser Lys Ile Ile Arg  
 50 55 60

Cys Lys Ala Ile Leu Cys Leu Thr Val Ala Leu Ser Lys Gln Leu Cys  
 65 70 75 80

Ser Gly Val Ala Phe Asp Val Leu Glu Phe Asp Tyr Met Gln Ser Cys  
 85 90 95

Ile

&lt;210&gt; 2146

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2146

Met Met Thr Met Thr Ser Asp Arg Trp Phe Ser Met Ala Trp Ala Ser  
 1 5 10 15

Cys Ser Leu Ser Arg Pro Pro Leu Thr Pro Ser Cys Ser Cys Gln Gln  
 20 25 30

Pro Ala Thr Val Ala Leu Leu Leu Gln Thr Ile Ser Val Cys Ser Ala  
 35 40 45

Gln Gln Ala Asp Pro Leu Ser Pro Pro Arg Ala Cys Arg Pro Xaa Arg  
 50 55 60

Gln Phe Pro Val Leu Gln Ser Ala Gly Pro Pro His Ser Pro His Val  
 65 70 75 80

Tyr Ala Phe Val Leu Phe Pro Val Ser Ser Arg Trp Gln Gly Gly Asp  
                             85                            90                            95

Phe Cys Xaa Ile Cys Cys Cys Phe Pro Gln Cys Leu Gly Arg Cys Leu  
                             100                            105                            110

Glu His Thr Arg Cys Ser Ile Asn Pro Xaa  
                             115                            120

<210> 2147  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 2147  
 Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
   1                            5                            10                            15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
                             20                            25                            30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
                             35                            40                            45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
                             50                            55                            60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
   65                            70                            75                            80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Arg Ser Pro Trp His  
                             85                            90                            95

Pro Gly Asn

<210> 2148  
 <211> 245  
 <212> PRT  
 <213> Homo sapiens

<400> 2148  
 Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
   1                            5                            10                            15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
                             20                            25                            30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
                             35                            40                            45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
                             50                            55                            60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
   65                            70                            75                            80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
                     85                    90                    95  
 Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln  
                     100                    105                    110  
 Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly  
                     115                    120                    125  
 Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
                     130                    135                    140  
 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
                     145                    150                    155                    160  
 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
                     165                    170                    175  
 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
                     180                    185                    190  
 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
                     195                    200                    205  
 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
                     210                    215                    220  
 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
                     225                    230                    235                    240  
 Ile Phe Pro Ser Ala  
                     245

<210> 2149  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 2149  
 Met Gly His Leu His Trp Gly Val Ser Gly Asn Phe Phe Phe Pro Arg  
   1                    5                    10                    15  
 Leu Ser Leu Phe Leu Leu Phe Ala Trp Leu Gln Ile Thr Gln Ala Asn  
                     20                    25                    30  
 Glu Pro Arg Leu Pro Gly Lys Tyr Ser Ile Lys Ala Ile Lys Ile Thr  
                     35                    40                    45  
 Ile Cys Ile Thr Phe Arg Thr Ser Ala  
                     50                    55

<210> 2150  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 2150

Met Gly Val His Val Gly Ala Ala Leu Gly Ala Leu Trp Phe Cys Leu  
 1 5 10 15

Thr Gly Ala Leu Glu Val Gln Val Pro Glu Asp Pro Val Val Ala Leu  
 20 25 30

Val Gly Thr Asp Ala Thr Leu Cys Cys Ser Phe Ser Pro Glu Pro Gly  
 35 40 45

Phe Ser Leu Ala Gln Leu Asn Leu Ile Trp Gln Leu Thr Asp Thr Lys  
 50 55 60

Gln Leu Val His Ser Phe Ala Glu Gly Gln Asp Gln Gly Ser Ala Tyr  
 65 70 75 80

Ala Asn Arg Thr Ala Leu Phe Leu Asp Leu Leu Ala Gln Gly Asn Ala  
 85 90 95

Ser Leu Arg Leu Gln Ser Val Arg Val Ala Asp Glu Gly Gln Leu His  
 100 105 110

Leu Leu Arg Glu His Pro Gly Phe Arg Gln Arg Cys Arg Gln Pro Ala  
 115 120 125

Gly Gly Arg Ser Leu Leu Glu Ala Gln His Asp Pro Gly Ala Gln Gln  
 130 135 140

Gly Pro Ala Ala Arg Gly Thr Trp  
 145 150

&lt;210&gt; 2151

&lt;211&gt; 302

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2151

Met Arg Leu Gly Ser Pro Gly Leu Leu Phe Leu Leu Phe Ser Ser Leu  
 1 5 10 15

Arg Ala Asp Thr Gln Glu Lys Glu Val Arg Ala Met Val Gly Ser Asp  
 20 25 30

Val Glu Leu Ser Cys Ala Cys Pro Glu Gly Ser Arg Phe Asp Leu Asn  
 35 40 45

Asp Val Tyr Val Tyr Trp Gln Thr Ser Glu Ser Lys Thr Val Val Thr  
 50 55 60

Tyr His Ile Pro Gln Asn Ser Ser Leu Glu Asn Val Asp Ser Arg Tyr  
 65 70 75 80

Arg Asn Arg Ala Leu Met Ser Pro Ala Gly Met Leu Arg Gly Asp Phe  
                             85                            90                            95  
 Ser Leu Arg Leu Phe Asn Val Thr Pro Gln Asp Glu Gln Lys Phe His  
                             100                            105                            110  
 Cys Leu Val Leu Ser Gln Ser Leu Gly Phe Gln Glu Val Leu Ser Xaa  
                             115                            120                            125  
 Glu Val Thr Leu His Val Ala Ala Asn Phe Ser Val Pro Val Val Ser  
                             130                            135                            140  
 Ala Pro His Ser Pro Ser Gln Asp Glu Leu Thr Phe Thr Cys Thr Ser  
                             145                            150                            155                            160  
 Ile Asn Gly Tyr Pro Arg Pro Asn Val Tyr Trp Ile Asn Lys Thr Asp  
                             165                            170                            175  
 Asn Ser Leu Leu Asp Gln Ala Leu Gln Asn Asp Thr Val Phe Leu Asn  
                             180                            185                            190  
 Met Arg Gly Leu Tyr Asp Val Val Ser Val Leu Arg Ile Ala Arg Thr  
                             195                            200                            205  
 Pro Ser Val Asn Ile Gly Cys Cys Ile Glu Asn Val Leu Leu Gln Gln  
                             210                            215                            220  
 Asn Leu Thr Val Gly Ser Gln Thr Gly Asn Asp Ile Gly Glu Arg Asp  
                             225                            230                            235                            240  
 Lys Ile Thr Glu Asn Pro Val Ser Thr Gly Glu Lys Asn Ala Ala Thr  
                             245                            250                            255  
 Trp Ser Ile Leu Ala Val Leu Cys Leu Leu Val Val Val Ala Val Ala  
                             260                            265                            270  
 Ile Gly Trp Val Cys Arg Asp Arg Cys Leu Gln His Ser Tyr Ala Gly  
                             275                            280                            285  
 Ala Trp Ala Val Ser Pro Glu Thr Glu Leu Thr Gly His Val  
                             290                            295                            300

&lt;210&gt; 2152

&lt;211&gt; 316

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2152

Met Leu Arg Arg Arg Gly Ser Pro Gly Met Gly Val His Val Gly Ala  
     1                            5                            10                            15  
 Ala Leu Gly Ala Leu Trp Phe Cys Leu Thr Gly Ala Leu Glu Val Gln  
                             20                            25                            30  
 Val Pro Glu Asp Pro Val Val Ala Leu Val Gly Thr Asp Ala Thr Leu  
                             35                            40                            45  
 Cys Cys Ser Phe Ser Pro Glu Pro Gly Phe Ser Leu Ala Gln Leu Asn

50	55	60
Leu Ile Trp Gln Leu Thr Asp Thr Lys Gln Leu Val His Ser Phe Ala		
65	70	75 80
Glu Gly Gln Asp Gln Gly Ser Ala Tyr Ala Asn Arg Thr Ala Leu Phe		
	85	90 95
Pro Asp Leu Leu Ala Gln Gly Asn Ala Ser Leu Arg Leu Gln Arg Val		
	100	105 110
Arg Val Ala Asp Glu Gly Ser Phe Thr Cys Phe Val Ser Ile Arg Asp		
	115	120 125
Phe Gly Ser Ala Ala Val Ser Leu Gln Val Ala Ala Pro Tyr Ser Lys		
	130	135 140
Pro Ser Met Thr Leu Glu Pro Asn Lys Asp Leu Arg Pro Gly Asp Thr		
	145	150 155 160
Val Thr Ile Thr Cys Ser Ser Tyr Gln Gly Tyr Pro Glu Ala Glu Val		
	165	170 175
Phe Trp Gln Asp Gly Gln Gly Val Pro Leu Thr Gly Asn Val Thr Thr		
	180	185 190
Ser Gln Met Ala Asn Glu Gln Gly Leu Phe Asp Val His Ser Ile Leu		
	195	200 205
Arg Val Val Leu Gly Ala Asn Gly Thr Tyr Ser Cys Leu Val Arg Asn		
	210	215 220
Pro Val Leu Gln Gln Asp Ala His Ser Ser Val Thr Ile Thr Gly Gln		
	225	230 235 240
Pro Met Thr Phe Pro Pro Glu Ala Leu Trp Val Thr Val Gly Leu Ser		
	245	250 255
Val Cys Leu Ile Ala Leu Leu Val Ala Leu Ala Phe Val Cys Trp Arg		
	260	265 270
Lys Ile Lys Gln Ser Cys Glu Glu Glu Asn Ala Gly Ala Glu Asp Gln		
	275	280 285
Asp Gly Glu Gly Glu Gly Ser Lys Thr Ala Leu Gln Pro Leu Lys His		
	290	295 300
Ser Asp Ser Lys Glu Asp Asp Gly Gln Glu Ile Ala		
	305	310 315

&lt;210&gt; 2153

&lt;211&gt; 831

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2153

Met Lys Val His Met His Thr Lys Phe Cys Leu Ile Cys Leu Leu Thr
1 5 10 15

Phe Ile Phe His His Cys Asn His Cys His Glu Glu His Asp His Gly  
                   20                                  25                                  30  
 Pro Glu Ala Leu His Arg Gln His Arg Gly Met Thr Glu Leu Glu Pro  
                   35                                  40                                  45  
 Ser Lys Phe Ser Lys Gln Ala Ala Glu Asn Glu Lys Lys Tyr Tyr Ile  
                   50                                  55                                  60  
 Glu Lys Leu Phe Glu Arg Tyr Gly Glu Asn Gly Arg Leu Ser Phe Phe  
                   65                                  70                                  75                                  80  
 Gly Leu Glu Lys Leu Leu Thr Asn Leu Gly Leu Gly Glu Arg Lys Val  
                                   85                                  90                                  95  
 Val Glu Ile Asn His Glu Asp Leu Gly His Asp His Val Ser His Leu  
                                   100                                  105                                  110  
 Asp Ile Leu Ala Val Gln Glu Gly Lys His Phe His Ser His Asn His  
                   115                                  120                                  125  
 Gln His Ser His Asn His Leu Asn Ser Glu Asn Gln Thr Val Thr Ser  
                   130                                  135                                  140  
 Val Ser Thr Lys Arg Asn His Lys Cys Asp Pro Glu Lys Glu Thr Val  
                   145                                  150                                  155                                  160  
 Glu Val Ser Val Lys Ser Asp Asp Lys His Met His Asp His Asn His  
                                   165                                  170                                  175  
 Arg Leu Arg His His His Arg Leu His His His Leu Asp His Asn Asn  
                   180                                  185                                  190  
 Thr His His Phe His Asn Asp Ser Ile Thr Pro Ser Glu Arg Gly Glu  
                   195                                  200                                  205  
 Pro Ser Asn Glu Pro Ser Thr Glu Thr Asn Lys Thr Gln Glu Gln Ser  
                   210                                  215                                  220  
 Asp Val Lys Leu Pro Lys Gly Lys Arg Lys Lys Lys Gly Arg Lys Ser  
                   225                                  230                                  235                                  240  
 Asn Glu Asn Ser Glu Val Ile Thr Pro Gly Phe Pro Pro Asn His Asp  
                                   245                                  250                                  255  
 Gln Gly Glu Gln Tyr Glu His Asn Arg Val His Lys Pro Asp Arg Val  
                                   260                                  265                                  270  
 His Asn Pro Gly His Ser His Val His Leu Pro Glu Arg Asn Gly His  
                   275                                  280                                  285  
 Asp Pro Gly Arg Gly His Gln Asp Leu Asp Pro Asp Asn Glu Gly Glu  
                   290                                  295                                  300  
 Leu Arg His Thr Arg Lys Arg Glu Ala Pro His Val Lys Asn Asn Ala  
                   305                                  310                                  315                                  320  
 Ile Ile Ser Leu Arg Lys Asp Leu Asn Glu Asp Asp His His His Glu  
                                   325                                  330                                  335

Cys Leu Asn Val Thr Gln Leu Leu Lys Tyr Tyr Gly His Gly Ala Asn  
 340 345 350  
 Ser Pro Ile Ser Thr Asp Leu Phe Thr Tyr Leu Cys Pro Ala Leu Leu  
 355 360 365  
 Tyr Gln Ile Asp Ser Arg Leu Cys Ile Glu His Phe Asp Lys Leu Leu  
 370 375 380  
 Val Glu Asp Ile Asn Lys Asp Lys Asn Leu Val Pro Glu Asp Glu Ala  
 385 390 395 400  
 Asn Ile Gly Ala Ser Ala Trp Ile Cys Gly Ile Ile Ser Ile Thr Val  
 405 410 415  
 Ile Ser Leu Leu Ser Leu Leu Gly Val Ile Leu Val Pro Ile Ile Asn  
 420 425 430  
 Gln Gly Cys Phe Lys Phe Leu Leu Thr Phe Leu Val Ala Leu Ala Val  
 435 440 445  
 Gly Thr Met Ser Gly Asp Ala Leu Leu His Leu Leu Pro His Ser Gln  
 450 455 460  
 Gly Gly His Asp His Ser His Gln His Ala His Gly His Gly His Ser  
 465 470 475 480  
 His Gly His Glu Ser Asn Lys Phe Leu Glu Glu Tyr Asp Ala Val Leu  
 485 490 495  
 Lys Gly Leu Val Ala Leu Gly Gly Ile Tyr Leu Leu Phe Ile Ile Glu  
 500 505 510  
 His Cys Ile Arg Met Phe Lys His Tyr Lys Gln Gln Arg Gly Lys Gln  
 515 520 525  
 Lys Trp Phe Met Lys Gln Asn Thr Glu Glu Ser Thr Ile Gly Arg Lys  
 530 535 540  
 Leu Ser Asp His Lys Leu Asn Asn Thr Pro Asp Ser Asp Trp Leu Gln  
 545 550 555 560  
 Leu Lys Pro Leu Ala Gly Thr Asp Asp Ser Val Val Ser Glu Asp Arg  
 565 570 575  
 Leu Asn Glu Thr Glu Leu Thr Asp Leu Glu Gly Gln Gln Glu Ser Pro  
 580 585 590  
 Pro Lys Asn Tyr Leu Cys Ile Glu Glu Glu Lys Ile Ile Asp His Ser  
 595 600 605  
 His Ser Asp Gly Leu His Thr Ile His Glu His Asp Leu His Ala Ala  
 610 615 620  
 Ala His Asn His His Gly Glu Asn Lys Thr Val Leu Arg Lys His Asn  
 625 630 635 640  
 His Gln Trp His His Lys His Ser His His Ser His Gly Pro Cys His  
 645 650 655



Ser Gly Ser Asp Leu Lys Glu Thr Gly Ile Ala Asn Ile Ala Trp Met  
 660 665 670  
 Val Ile Met Gly Asp Gly Ile His Asn Phe Ser Asp Gly Leu Ala Ile  
 675 680 685  
 Gly Ala Ala Phe Ser Ala Gly Leu Thr Gly Gly Ile Ser Thr Ser Ile  
 690 695 700  
 Ala Val Phe Cys His Glu Leu Pro His Glu Leu Gly Asp Phe Ala Val  
 705 710 715 720  
 Leu Leu Lys Ala Gly Met Thr Val Lys Gln Ala Ile Val Tyr Asn Leu  
 725 730 735  
 Leu Ser Ala Met Met Ala Tyr Ile Gly Met Leu Ile Gly Thr Ala Val  
 740 745 750  
 Gly Gln Tyr Ala Asn Asn Ile Thr Leu Trp Ile Phe Ala Val Thr Ala  
 755 760 765  
 Gly Met Phe Leu Tyr Val Ala Leu Val Asp Met Leu Pro Glu Met Leu  
 770 775 780  
 His Gly Asp Gly Asp Asn Glu Glu His Gly Phe Cys Pro Val Gly Gln  
 785 790 795 800  
 Phe Ile Leu Gln Asn Leu Gly Leu Leu Phe Gly Phe Ala Ile Met Leu  
 805 810 815  
 Val Ile Ala Leu Tyr Glu Asp Lys Ile Val Phe Asp Ile Gln Phe  
 820 825 830

&lt;210&gt; 2154

&lt;211&gt; 480

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2154

Met Leu Phe Arg Asn Arg Phe Leu Leu Leu Leu Ala Leu Ala Leu  
 1 5 10 15  
 Leu Ala Phe Val Ser Leu Ser Leu Gln Phe Phe His Leu Ile Pro Val  
 20 25 30  
 Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met  
 35 40 45  
 Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala  
 50 55 60  
 Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly  
 65 70 75 80  
 His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg  
 85 90 95

His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro  
 100 105 110  
 Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys  
 115 120 125  
 Leu Glu Ala Phe Ile Ser His Met Ser Lys Gly Ser Gly Ala Ser Phe  
 130 135 140  
 Glu Ser Pro Leu Asn Ser Leu Pro Leu Tyr Pro Asn His Pro Leu Cys  
 145 150 155 160  
 Glu Met Gly Glu Leu Thr Gln Thr Gly Val Val Gln His Leu Gln Asn  
 165 170 175  
 Gly Gln Leu Leu Arg Asp Ile Tyr Leu Lys Lys His Lys Leu Leu Pro  
 180 185 190  
 Asn Asp Trp Ser Ala Asp Gln Leu Tyr Leu Glu Thr Thr Gly Lys Ser  
 195 200 205  
 Arg Thr Leu Gln Ser Gly Leu Ala Leu Leu Tyr Gly Phe Leu Pro Asp  
 210 215 220  
 Phe Asp Trp Lys Lys Ile Tyr Phe Arg His Gln Pro Ser Ala Leu Phe  
 225 230 235 240  
 Cys Ser Gly Ser Cys Tyr Cys Pro Val Arg Asn Gln Tyr Leu Glu Lys  
 245 250 255  
 Glu Gln Arg Arg Gln Tyr Leu Leu Arg Leu Lys Asn Ser Gln Leu Glu  
 260 265 270  
 Lys Thr Tyr Gly Glu Met Ala Lys Ile Val Asp Val Pro Thr Lys Gln  
 275 280 285  
 Leu Arg Ala Ala Asn Pro Ile Asp Ser Met Leu Cys His Phe Cys His  
 290 295 300  
 Asn Val Ser Phe Pro Cys Thr Arg Asn Gly Cys Val Asp Met Glu His  
 305 310 315 320  
 Phe Lys Val Ile Lys Thr His Gln Ile Glu Asp Glu Arg Glu Arg Arg  
 325 330 335  
 Glu Lys Lys Leu Tyr Phe Gly Tyr Ser Leu Leu Gly Ala His Pro Ile  
 340 345 350  
 Leu Asn Gln Thr Ile Gly Arg Met Gln Arg Ala Thr Glu Gly Arg Lys  
 355 360 365  
 Glu Glu Leu Phe Ala Leu Tyr Ser Ala His Asp Val Thr Leu Ser Pro  
 370 375 380  
 Val Leu Ser Ala Leu Gly Leu Ser Glu Ala Arg Phe Pro Arg Phe Ala  
 385 390 395 400  
 Ala Arg Leu Ile Phe Glu Leu Trp Gln Asp Arg Glu Lys Pro Ser Glu  
 405 410 415

His Ser Val Arg Ile Leu Tyr Asn Gly Val Asp Val Thr Phe His Thr  
 420 425 430

Ser Phe Cys Gln Asp His His Lys Arg Ser Pro Lys Pro Met Cys Pro  
 435 440 445

Leu Glu Asn Leu Val Arg Phe Val Lys Arg Asp Met Phe Val Ala Leu  
 450 455 460

Gly Gly Ser Gly Thr Asn Tyr Tyr Asp Ala Cys His Arg Glu Gly Phe  
 465 470 475 480

<210> 2155  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 2155  
 Met Phe Leu Met Leu Gly Cys Ala Leu Pro Ile Tyr Asn Lys Tyr Trp  
 1 5 10 15

Pro Leu Phe Val Leu Phe Phe Tyr Ile Leu Ser Pro Ile Pro Tyr Cys  
 20 25 30

Ile Ala Arg Arg Leu Val Asp Asp Thr Asp Ala Met Ser Asn Ala Cys  
 35 40 45

Lys Glu Leu Ala Ile Phe Leu Thr Thr Gly Ile Val Val Ser Ala Phe  
 50 55 60

Gly Leu Pro Ile Val Phe Ala Arg Ala His Leu Met Gly Arg Leu Pro  
 65 70 75 80

Phe Phe Ser Lys Met Gly Thr Ala Glu Ser Glu Gly Arg Glu Thr Leu  
 85 90 95

Thr Gln Gln Leu Pro Leu Pro Ala Ala Ala Met Arg Arg Leu Leu Pro  
 100 105 110

Ala Ser Arg Val Ser Thr Gln Pro Val Leu Arg Leu Ala Asp Ser Ala  
 115 120 125

Glu Ser Leu Leu Gly Arg Pro Ala Leu Trp Ala Leu Gly Phe Leu Leu  
 130 135 140

Cys Pro Pro Ser Gln Ala Gln  
 145 150

<210> 2156  
 <211> 89  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 2156

Met Tyr Met Gln Asp Tyr Trp Arg Thr Trp Leu Lys Gly Leu Arg Gly  
 1 5 10 15

Phe Phe Phe Val Gly Val Leu Phe Ser Ala Val Ser Ile Ala Ala Phe  
 20 25 30

Cys Thr Phe Leu Val Leu Ala Ile Thr Arg His Gln Ser Leu Thr Asp  
 35 40 45

Pro Thr Ser Tyr Tyr Leu Ser Ser Val Trp Ser Phe Ile Ser Phe Lys  
 50 55 60

Trp Ala Phe Leu Leu Ser Leu Tyr Ala His Arg Tyr Arg Ala Asp Phe  
 65 70 75 80

Ala Asp Ile Ser Ile Leu Ser Asp Phe  
 85

&lt;210&gt; 2157

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2157

Met Arg Gly His Ile Thr Thr Leu Leu Thr Thr Ser Phe Leu Val Phe  
 1 5 10 15

Gly Leu His Ile Ile Phe Phe Leu Asn Ile Ser Cys Phe Asn Phe Arg  
 20 25 30

Val Phe Ile Leu Phe Glu Thr Arg Pro Glu Asp Ser Arg Leu Tyr Arg  
 35 40 45

Glu Arg Pro Val Leu Pro Arg Tyr  
 50 55

&lt;210&gt; 2158

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2158

Met Gln Val Lys Asn Ser Ile His Val Thr Phe Val Ala Arg Ile Leu  
 1 5 10 15

Val Arg Val Leu Ile Cys Leu Ser Thr Ser Glu Ala Ile Leu Ala Arg  
 20 25 30

Asn His Ile Tyr Val Val Ser Val Thr Asn Ala Ser Val Glu Val Gln  
 35 40 45

Thr Ser  
 50

<210> 2159  
 <211> 50  
 <212> FRT  
 <213> Homo sapiens

<400> 2159  
 Met Gln Val Lys Asn Ser Ile His Val Thr Phe Val Ala Arg Ile Leu  
     1                    5                    10                    15  
 Val Arg Val Leu Ile Cys Leu Ser Thr Ser Glu Ala Ile Leu Ala Arg  
                     20                    25                    30  
 Asn His Ile Tyr Val Val Ser Val Thr Asn Ala Ser Val Glu Val Gln  
             35                    40                    45  
 Thr Ser  
     50

<210> 2160  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

<400> 2160  
 Met Arg Leu Leu Val Leu Ser Ser Leu Leu Cys Ile Leu Leu Leu Cys  
     1                    5                    10                    15  
 Phe Ser Ile Phe Ser Thr Glu Gly Lys Arg Arg Pro Ala Lys Ala Trp  
                     20                    25                    30  
 Ser Gly Arg Arg Thr Arg Leu Cys Cys His Arg Val Pro Ser Pro Asn  
             35                    40                    45  
 Ser Thr Asn Leu Lys Gly His His Val Arg Leu Cys Lys Pro Cys Lys  
     50                    55                    60  
 Leu Glu Pro Glu Pro Arg Leu Trp Val Val Pro Gly Ala Leu Pro Gln  
     65                    70                    75                    80  
 Val

<210> 2161  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<400> 2161  
 Met Asn Ile Thr Arg Lys Leu Trp Ser Arg Thr Phe Asn Cys Ser Val  
     1                    5                    10                    15  
 Pro Cys Ser Asp Thr Val Pro Val Ile Ala Val Ser Val Phe Ile Leu  
             20                    25                    30  
 Phe Leu Pro Val Val Phe Tyr Leu Ser Ser Phe Leu His Ser Glu Gln  
                                     1420

35                      40                      45  
 Lys Lys Arg Lys Leu Ile Leu Pro Lys Arg Leu Lys Ser Ser Thr Ser  
     50                      55                      60  
 Phe Ala Asn Ile Gln Glu Asn Ser Asn  
     65                      70

&lt;210&gt; 2162

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2162

Met Glu Pro Gly Pro Thr Ala Ala Gln Arg Arg Cys Ser Leu Pro Pro  
     1                      5                      10                      15

Trp Leu Pro Leu Gly Leu Leu Leu Trp Ser Gly Leu Ala Leu Gly Ala  
                     20                      25                      30

Leu Pro Phe Gly Ser Ser Pro His Arg Val Phe His Asp Leu Leu Ser  
                     35                      40                      45

Glu Gln Gln Leu Leu Glu Val Glu Asp Leu Ser Leu Ser Leu Leu Gln  
     50                      55                      60

Gly Gly Gly Leu Gly Pro Leu Ser Leu Pro Pro Asp Leu Pro Asp Leu  
     65                      70                      75                      80

Asp Pro Glu Cys Arg Glu Leu Leu Leu Asp Phe Ala Asn Ser Ser Ala  
                     85                      90                      95

Glu Leu Thr Gly Cys Leu Val Arg Ser Ala Arg Pro Val Arg Leu Cys  
                     100                      105                      110

Gln Thr Cys Tyr Pro Leu Phe Gln Gln Val Val Ser Lys Met Asp Asn  
                     115                      120                      125

Ile Ser Arg Ala Ala Gly Asn Thr Ser Glu Ser Gln Ser Cys Ala Arg  
     130                      135                      140

Ser Leu Leu Met Ala Asp Arg Met Gln Ile Val Val Ile Leu Ser Glu  
     145                      150                      155                      160

Phe Phe Asn Thr Thr Trp Gln Glu Ala Asn Cys Ala Asn Cys Leu Thr  
                     165                      170                      175

Asn Asn Ser Glu Glu Leu Ser Asn Ser Thr Val Tyr Phe Leu Lys Ser  
                     180                      185                      190

Ile

&lt;210&gt; 2163

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2163

Met Ala Pro Glu Val Met Glu Gln Val Arg Gly Tyr Asp Phe Lys Ala  
 1 5 10 15

Asp Ile Trp Ser Phe Gly Ile Thr Ala Ile Glu Leu Ala Thr Gly Ala  
 20 25 30

Ala Pro Tyr His Lys Tyr Pro Pro Met Lys Val Leu Met Leu Thr Leu  
 35 40 45

Gln Asn Asp Pro Pro Ser Leu Glu Thr Gly Val Gln Asp Lys Glu Met  
 50 55 60

Leu Lys Lys Tyr Gly Lys Ser Phe Arg Lys Met Ile Ser Leu Cys Leu  
 65 70 75 80

Gln Lys Asp Pro Glu Lys Arg Pro Thr Ala Ala Glu Leu Leu Arg His  
 85 90 95

Lys Phe Phe Gln Lys Ala Lys Asn Lys Glu Phe Leu Gln Glu Lys Thr  
 100 105 110

Leu Gln Arg Ala Pro Thr Ile Ser Glu Arg Ala Lys Lys Val Arg Arg  
 115 120 125

Val Pro Gly Ser Cys Pro  
 130

&lt;210&gt; 2164

&lt;211&gt; 334

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (105)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2164

Met Glu Pro Gly Pro Thr Ala Ala Gln Arg Arg Cys Ser Leu Pro Pro  
 1 5 10 15

Trp Leu Pro Leu Gly Leu Leu Leu Trp Ser Gly Leu Ala Leu Gly Ala  
 20 25 30

Leu Pro Phe Gly Ser Ser Pro His Arg Val Phe His Asp Leu Leu Ser  
 35 40 45

Glu Gln Gln Leu Leu Glu Val Glu Asp Leu Ser Leu Ser Leu Leu Gln  
 50 55 60

Gly Gly Gly Leu Gly Pro Leu Ser Leu Pro Pro Asp Leu Pro Asp Leu  
 65 70 75 80

Asp Pro Glu Cys Arg Glu Leu Leu Leu Asp Phe Ala Asn Ser Ser Ala  
 85 90 95

Glu Leu Thr Gly Cys Leu Val Arg Xaa Ala Arg Pro Val Arg Leu Cys  
 100 105 110  
 Gln Thr Cys Tyr Pro Leu Phe Gln Gln Val Val Ser Lys Met Asp Asn  
 115 120 125  
 Ile Ser Arg Ala Ala Gly Asn Thr Ser Glu Ser Gln Ser Cys Ala Arg  
 130 135 140  
 Ser Leu Leu Met Ala Asp Arg Met Gln Ile Val Val Ile Leu Ser Glu  
 145 150 155 160  
 Phe Phe Asn Thr Thr Trp Gln Glu Ala Asn Cys Ala Asn Cys Leu Thr  
 165 170 175  
 Asn Asn Ser Glu Glu Leu Ser Asn Ser Thr Val Tyr Phe Leu Asn Leu  
 180 185 190  
 Phe Asn His Thr Leu Thr Cys Phe Glu His Asn Leu Gln Gly Asn Ala  
 195 200 205  
 His Ser Leu Leu Gln Thr Lys Asn Tyr Ser Glu Val Cys Lys Asn Cys  
 210 215 220  
 Arg Glu Ala Tyr Lys Thr Leu Ser Ser Leu Tyr Ser Glu Met Gln Lys  
 225 230 235 240  
 Met Asn Glu Leu Glu Asn Lys Ala Glu Pro Gly Thr His Leu Cys Ile  
 245 250 255  
 Asp Val Glu Asp Ala Met Asn Ile Thr Arg Lys Leu Trp Ser Arg Thr  
 260 265 270  
 Phe Asn Cys Ser Val Pro Cys Ser Asp Thr Val Pro Val Ile Ala Val  
 275 280 285  
 Ser Val Phe Ile Leu Phe Leu Pro Val Val Phe Tyr Leu Ser Ser Phe  
 290 295 300  
 Leu His Ser Glu Gln Lys Lys Arg Lys Leu Ile Leu Pro Lys Arg Leu  
 305 310 315 320  
 Lys Ser Ser Thr Ser Phe Ala Asn Ile Gln Glu Asn Ser Asn  
 325 330

&lt;210&gt; 2165

&lt;211&gt; 49

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2165

Met Val Leu Val Phe Ala Tyr Leu Cys Val Leu Leu Ile Val Cys Trp  
 1 5 10 15

Val Thr Ser Lys Thr Ser Leu Ala Leu Lys Tyr Thr Val Tyr Lys Asn  
 20 25 30



Phe Lys Arg Leu Ile Trp Asn Lys Ser Ile Leu Ile Ile Thr Leu Thr  
                   35                                  40                                  45

Pro

<210> 2166

<211> 75

<212> PRT

<213> Homo sapiens

<400> 2166

Met Ser Leu Ser Ile Leu Val Ala Leu Ser Leu Gln Ile Leu Phe Leu  
       1                                  5                                  10                                  15

Phe Thr Ile Leu Lys Cys Met Leu Ala Lys Trp Val Asp Phe Gln Ile  
                   20                                  25                                  30

Lys Cys Ser Phe His Lys Ser Phe Val Met Val Phe Trp Ser Glu Met  
                   35                                  40                                  45

His Phe His Phe Ser Phe Leu Phe Leu Leu Ser Ile Leu Ser Phe Phe  
                   50                                  55                                  60

Pro Asn Lys Ile Tyr Pro Gly Asp Tyr Ile Cys  
       65                                  70                                  75

<210> 2167

<211> 86

<212> PRT

<213> Homo sapiens

<400> 2167

Met Leu Trp Ala Leu Asp Ser Leu Leu Phe Phe Ser His Ala Gln Leu  
       1                                  5                                  10                                  15

Val Pro Leu Gly Gly Gly Glu Glu Trp Gly Ser Pro Gly Leu Gly Leu  
                   20                                  25                                  30

His Ser Ile Ile Pro Ser Gln Ala Ser Gln Gly Val Ser Ala Pro Ala  
                   35                                  40                                  45

Gln Asp Leu Ala Gly Arg Ala Pro Tyr Arg Glu Ser Leu Gly Arg Leu  
                   50                                  55                                  60

Ser Arg Leu Met Ala Gly Pro Ala Arg Gly Val Leu Arg Pro Ala Leu  
       65                                  70                                  75                                  80

Arg Thr Cys Pro Leu Phe  
                                   85

<210> 2168

<211> 152

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2168

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp  
 1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val  
 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Asn Arg Ala Trp Gly Ala  
 35 40 45

Arg Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe  
 50 55 60

Pro Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly  
 65 70 75 80

Gln Gly Arg Gly Pro Ile Leu Pro Gly Thr Lys Ala Trp Met Glu Thr  
 85 90 95

Glu Asp Thr Leu Gly Arg Val Leu Ser Pro Glu Pro Asp His Asp Ser  
 100 105 110

Leu Tyr His Pro Pro Pro Glu Glu Asp Gln Gly Glu Glu Arg Pro Arg  
 115 120 125

Leu Trp Val Met Pro Asn His Gln Val Leu Leu Gly Pro Glu Glu Asp  
 130 135 140

Gln Asp His Ile Tyr His Pro Gln  
 145 150

&lt;210&gt; 2169

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2169

Met Arg Arg Leu Leu Leu Val Thr Ser Leu Val Val Val Leu Leu Trp  
 1 5 10 15

Glu Ala Gly Ala Val Pro Ala Pro Lys Val Pro Ile Lys Met Gln Val  
 20 25 30

Lys His Trp Pro Ser Glu Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg  
 35 40 45

Val Val Glu Pro Pro Glu Lys Asp Asp Gln Leu Val Val Leu Phe Pro  
 50 55 60

Val Gln Lys Pro Lys Leu Leu Thr Thr Glu Glu Lys Pro Arg Gly Thr  
 65 70 75 80

Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val Leu Ser Pro  
 85 90 95

Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu Glu Asp Gln  
 1425

100 105 110  
 Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His Gln Val Leu  
 115 120 125  
 Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro Gln  
 130 135 140  
  
 <210> 2170  
 <211> 453  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 2170  
 Met Lys Leu Leu Val Ile Leu Ile Phe Ser Gly Leu Ile Thr Cys Cys  
 1 5 10 15  
 Gly Gly Asn Ser Ser His Ser Leu Pro Ser Lys Leu Leu Leu Val Ser  
 20 25 30  
 Phe Asp Gly Phe Arg Ala Asp Tyr Leu Gln Asn Tyr Glu Phe Pro His  
 35 40 45  
 Leu Gln Asn Phe Ile Lys Glu Gly Val Leu Val Glu His Val Lys Asn  
 50 55 60  
 Val Phe Ile Thr Lys Thr Phe Pro Asn His Tyr Ser Ile Val Thr Gly  
 65 70 75 80  
 Leu Tyr Glu Glu Ser His Gly Ile Val Ala Asn Ser Met Tyr Asp Val  
 85 90 95  
 Ile Thr Lys Lys His Phe Ser Asp Phe Asp Asp Lys Asp Pro Phe Trp  
 100 105 110  
 Trp Asn Glu Ala Val Pro Ile Trp Val Thr Asn Gln Leu Gln Glu Asn  
 115 120 125  
 Arg Ser Ser Ala Ala Ala Met Trp Pro Gly Thr Asp Val Pro Ile His  
 130 135 140  
 Asn Thr Thr Pro Ser Tyr Phe Met Asn Tyr Ser Ser Ser Val Ser Phe  
 145 150 155 160  
 Glu Glu Arg Leu Asn Asn Ile Thr Met Trp Leu Met Asn Ser Asn Pro  
 165 170 175  
 Pro Val Thr Phe Ala Thr Leu Tyr Trp Glu Glu Pro Asp Ala Ser Gly  
 180 185 190  
 His Lys Tyr Gly Pro Glu Asp Lys Glu Asn Met Tyr Arg Val Leu Lys  
 195 200 205  
 Glu Val Asp Asp Leu Ile Gly Glu Leu Val His Lys Leu Lys Val Leu  
 210 215 220  
 Gly Leu Trp Glu Asn Leu Asn Val Ile Ile Thr Ser Asp His Gly Met  
 225 230 235 240

Thr Gln Cys Ser Lys Asp Lys Leu Ile Asn Leu Asp Leu Cys Ile Asp  
 245 250 255  
 Arg Ser Ser Tyr Thr Leu Val Asp Leu Thr Pro Val Ala Ala Val Leu  
 260 265 270  
 Pro Lys Ile Asn Thr Thr Glu Val Tyr Asn Lys Leu Lys Val Cys Asn  
 275 280 285  
 Pro His Met Asn Val Tyr Leu Lys Glu Asp Ile Pro Ala Arg Phe His  
 290 295 300  
 Tyr Gln His Asn Asp Arg Ile Gln Pro Ile Ile Leu Val Ala Asp Glu  
 305 310 315 320  
 Gly Trp Thr Ile Val Leu Asn Lys Ser Leu Pro Lys Leu Gly Asp His  
 325 330 335  
 Gly Tyr Asp Asn Ser Leu Ser Ser Met His Pro Phe Leu Ala Ala His  
 340 345 350  
 Gly Pro Ala Phe His Lys Gly Tyr Lys His Ser Thr Ile Asn Ser Val  
 355 360 365  
 Asp Ile Tyr Pro Met Met Cys His Ile Leu Gly Leu Lys Pro His Pro  
 370 375 380  
 Asn Asn Gly Thr Phe Gly His Thr Lys Cys Leu Leu Val Asp Gln Trp  
 385 390 395 400  
 Cys Ile Asn Leu Pro Glu Ala Ile Gly Ile Val Ile Gly Ala Leu Leu  
 405 410 415  
 Val Leu Thr Thr Leu Thr Cys Leu Ile Ile Ile Met Gln Asn Arg Leu  
 420 425 430  
 Ser Val Pro Arg Pro Phe Ser Arg Leu Gln Leu Gln Glu Asp Asp Asp  
 435 440 445  
 Asp Pro Leu Ile Glu  
 450

&lt;210&gt; 2171

&lt;211&gt; 287

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2171

Met Gly Ala Leu Arg Pro Thr Leu Leu Pro Pro Ser Leu Pro Leu Leu  
 1 5 10 15  
 Leu Leu Leu Met Leu Gly Met Gly Cys Trp Ala Arg Glu Val Leu Val  
 20 25 30  
 Pro Glu Gly Pro Leu Tyr Arg Val Ala Gly Thr Ala Val Ser Ile Ser  
 35 40 45

Cys Asn Val Thr Gly Tyr Glu Gly Pro Ala Gln Gln Asn Phe Glu Trp  
 50 55 60  
 Phe Leu Tyr Arg Pro Glu Ala Pro Asp Thr Ala Leu Gly Ile Val Ser  
 65 70 75 80  
 Thr Lys Asp Thr Gln Phe Ser Tyr Ala Val Phe Lys Ser Arg Val Val  
 85 90 95  
 Ala Gly Glu Val Gln Val Gln Arg Leu Gln Gly Asp Ala Val Val Leu  
 100 105 110  
 Lys Ile Ala Arg Leu Gln Ala Gln Asp Ala Gly Ile Tyr Glu Cys His  
 115 120 125  
 Thr Pro Ser Thr Asp Thr Arg Tyr Leu Gly Ser Tyr Ser Gly Lys Val  
 130 135 140  
 Glu Leu Arg Val Leu Pro Asp Val Leu Gln Val Ser Ala Ala Pro Pro  
 145 150 155 160  
 Gly Pro Arg Gly Arg Gln Ala Pro Thr Ser Pro Pro Arg Met Thr Val  
 165 170 175  
 His Glu Gly Gln Glu Leu Ala Leu Gly Cys Leu Ala Arg Thr Ser Thr  
 180 185 190  
 Gln Lys His Thr His Leu Ala Val Ser Phe Gly Arg Ser Val Pro Glu  
 195 200 205  
 Ala Pro Val Gly Arg Ser Thr Leu Gln Glu Val Val Gly Ile Arg Ser  
 210 215 220  
 Asp Leu Ala Val Glu Ala Gly Ala Pro Tyr Ala Glu Arg Leu Ala Ala  
 225 230 235 240  
 Gly Glu Leu Arg Leu Gly Lys Glu Gly Thr Asp Arg Tyr Arg Met Val  
 245 250 255  
 Val Gly Gly Ala Gln Ala Gly Asp Ala Gly Thr Tyr His Cys Thr Ala  
 260 265 270  
 Ala Glu Trp Ile Gln Asp Pro Asp Gly Ser Trp Ala Gln Ile Ala  
 275 280 285

&lt;210&gt; 2172

&lt;211&gt; 613

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2172

Met Gly Ala Leu Arg Pro Thr Leu Leu Pro Pro Ser Leu Pro Leu Leu  
 1 5 10 15

Leu Leu Leu Met Leu Gly Met Gly Cys Trp Ala Arg Glu Val Leu Val  
 20 25 30

Pro Glu Gly Pro Leu Tyr Arg Val Ala Gly Thr Ala Val Ser Ile Ser

35	40	45																	
Cys	Asn	Val	Thr	Gly	Tyr	Glu	Gly	Pro	Ala	Gln	Gln	Asn	Phe	Glu	Trp				
50						55					60								
Phe	Leu	Tyr	Arg	Pro	Glu	Ala	Pro	Asp	Thr	Ala	Leu	Gly	Ile	Val	Ser				
65					70					75					80				
Thr	Lys	Asp	Thr	Gln	Phe	Ser	Tyr	Ala	Val	Phe	Lys	Ser	Arg	Val	Val				
				85					90					95					
Ala	Gly	Glu	Val	Gln	Val	Gln	Arg	Leu	Gln	Gly	Asp	Ala	Val	Val	Leu				
			100					105					110						
Lys	Ile	Ala	Arg	Leu	Gln	Ala	Gln	Asp	Ala	Gly	Ile	Tyr	Glu	Cys	His				
	115						120						125						
Thr	Pro	Ser	Thr	Asp	Thr	Arg	Tyr	Leu	Gly	Ser	Tyr	Ser	Gly	Lys	Val				
	130					135					140								
Glu	Leu	Arg	Val	Leu	Pro	Asp	Val	Leu	Gln	Val	Ser	Ala	Ala	Pro	Pro				
145					150					155					160				
Gly	Pro	Arg	Gly	Arg	Gln	Ala	Pro	Thr	Ser	Pro	Pro	Arg	Met	Thr	Val				
				165					170					175					
His	Glu	Gly	Gln	Glu	Leu	Ala	Leu	Gly	Cys	Leu	Ala	Arg	Thr	Ser	Thr				
			180					185					190						
Gln	Lys	His	Thr	His	Leu	Ala	Val	Ser	Phe	Gly	Arg	Ser	Val	Pro	Glu				
		195					200					205							
Ala	Pro	Val	Gly	Arg	Ser	Thr	Leu	Gln	Glu	Val	Val	Gly	Ile	Arg	Ser				
	210					215					220								
Asp	Leu	Ala	Val	Glu	Ala	Gly	Ala	Pro	Tyr	Ala	Glu	Arg	Leu	Ala	Ala				
225					230					235					240				
Gly	Glu	Leu	Arg	Leu	Gly	Lys	Glu	Gly	Thr	Asp	Arg	Tyr	Arg	Met	Val				
				245					250					255					
Val	Gly	Gly	Ala	Gln	Ala	Gly	Asp	Ala	Gly	Thr	Tyr	His	Cys	Thr	Ala				
			260					265					270						
Ala	Glu	Trp	Ile	Gln	Asp	Pro	Asp	Gly	Ser	Trp	Ala	Gln	Ile	Ala	Glu				
	275						280					285							
Lys	Arg	Ala	Val	Leu	Ala	His	Val	Asp	Val	Gln	Thr	Leu	Ser	Ser	Gln				
	290					295					300								
Leu	Ala	Val	Thr	Val	Gly	Pro	Gly	Glu	Arg	Arg	Ile	Gly	Pro	Gly	Glu				
305					310					315					320				
Pro	Leu	Glu	Leu	Leu	Cys	Asn	Val	Ser	Gly	Ala	Leu	Pro	Pro	Ala	Gly				
				325					330					335					
Arg	His	Ala	Ala	Tyr	Ser	Val	Gly	Trp	Glu	Met	Ala	Pro	Ala	Gly	Ala				
		340						345					350						
Pro	Gly	Pro	Gly	Arg	Leu	Val	Ala	Gln	Leu	Asp	Thr	Glu	Gly	Val	Gly				

355                      360                      365  
 Ser Leu Gly Pro Gly Tyr Glu Gly Arg His Ile Ala Met Glu Lys Val  
 370                      375                      380  
 Ala Ser Arg Thr Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp  
 385                      390                      395                      400  
 Ala Gly Thr Tyr Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly  
 405                      410                      415  
 Thr Arg Leu Arg Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val  
 420                      425                      430  
 His Val Arg Glu Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala  
 435                      440                      445  
 Gly Gly Thr Val Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile  
 450                      455                      460  
 Ser Val Arg Gly Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp  
 465                      470                      475                      480  
 Val Glu Arg Pro Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu  
 485                      490                      495  
 Val Gly Gly Val Gly Gln Asp Gly Val Ala Glu Leu Gly Val Arg Pro  
 500                      505                      510  
 Gly Gly Gly Pro Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg  
 515                      520                      525  
 Leu Arg Leu His Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys  
 530                      535                      540  
 Ala Pro Ser Ala Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala  
 545                      550                      555                      560  
 Gly Ser Ala Arg Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala  
 565                      570                      575  
 Leu Asp Thr Leu Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu  
 580                      585                      590  
 Val Thr Gly Ala Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys  
 595                      600                      605  
 Arg Leu Arg Lys Arg  
 610

&lt;210&gt; 2173

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2173

Met Trp Gly Trp Gly Ser Leu Val Ser Ala Arg Gly Gly Trp Gly Val  
 1                      5                      10                      15

Phe Ile Tyr Leu Tyr Met Gly Leu Tyr Ile Val Leu Trp Gly Met Gly  
                   20                                  25                                  30  
 Glu Pro Ala Gly Gly Glu Asn Pro Pro Leu Ser Pro His Pro Pro Gly  
                   35                                  40                                  45  
 Arg Ala Asn Val Lys Leu Leu Ile Phe Val Leu Tyr Ile Phe Tyr Ile  
                   50                                  55                                  60  
 Asn Ile Ser Ile Phe Phe Leu Gln Asn Gln Phe Ile Asn Gly Arg Gly  
                   65                                  70                                  75                                  80  
 Val Trp Gly Gly His Met Glu Leu Pro Leu Trp Gly Gly Pro Leu His  
                                   85                                  90                                  95  
 Tyr Pro Thr Tyr Arg Pro Phe Pro His Pro Pro Pro His Ser Pro Pro  
                   100                                  105                                  110  
 Pro Gly Cys Asp Cys Cys Lys Met Gly Val  
                   115                                  120

&lt;210&gt; 2174

&lt;211&gt; 613

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (507)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2174

Met Gly Ala Leu Arg Pro Thr Leu Leu Pro Pro Ser Leu Pro Leu Leu  
   1                                  5                                  10                                  15  
 Leu Leu Leu Met Leu Gly Met Gly Cys Trp Ala Arg Glu Val Leu Val  
                   20                                  25                                  30  
 Pro Glu Gly Pro Leu Tyr Arg Val Ala Gly Thr Ala Val Ser Ile Ser  
                   35                                  40                                  45  
 Cys Asn Val Thr Gly Tyr Glu Gly Pro Ala Gln Gln Asn Phe Glu Trp  
                   50                                  55                                  60  
 Phe Leu Tyr Arg Pro Glu Ala Pro Asp Thr Ala Leu Gly Ile Val Ser  
                   65                                  70                                  75                                  80  
 Thr Lys Asp Thr Gln Phe Ser Tyr Ala Val Phe Lys Ser Arg Val Val  
                                   85                                  90                                  95  
 Ala Gly Glu Val Gln Val Gln Arg Leu Gln Gly Asp Ala Val Val Leu  
                   100                                  105                                  110  
 Lys Ile Ala Arg Leu Gln Ala Gln Asp Ala Gly Ile Tyr Glu Cys His  
                   115                                  120                                  125  
 Thr Pro Ser Thr Asp Thr Arg Tyr Leu Gly Ser Tyr Ser Gly Lys Val



130	135	140
Glu Leu Arg Val Leu Pro Asp Val Leu Gln Val Ser Ala Ala Pro Pro 145 150 155 160		
Gly Pro Arg Gly Arg Gln Ala Pro Thr Ser Pro Pro Arg Met Thr Val 165 170 175		
His Glu Gly Gln Glu Leu Ala Leu Gly Cys Leu Ala Arg Thr Ser Thr 180 185 190		
Gln Lys His Thr His Leu Ala Val Ser Phe Gly Arg Ser Val Pro Glu 195 200 205		
Ala Pro Val Gly Arg Ser Thr Leu Gln Glu Val Val Gly Ile Arg Ser 210 215 220		
Asp Leu Ala Val Glu Ala Gly Ala Pro Tyr Ala Glu Arg Leu Ala Ala 225 230 235 240		
Gly Glu Leu Arg Leu Gly Lys Glu Gly Thr Asp Arg Tyr Arg Met Val 245 250 255		
Val Gly Gly Ala Gln Ala Gly Asp Ala Gly Thr Tyr His Cys Thr Ala 260 265 270		
Ala Glu Trp Ile Gln Asp Pro Asp Gly Ser Trp Ala Gln Ile Ala Glu 275 280 285		
Lys Arg Ala Val Leu Ala His Val Asp Val Gln Thr Leu Ser Ser Gln 290 295 300		
Leu Ala Val Thr Val Gly Pro Gly Glu Arg Arg Ile Gly Pro Gly Glu 305 310 315 320		
Pro Leu Glu Leu Leu Cys Asn Val Ser Gly Ala Leu Pro Pro Ala Gly 325 330 335		
Arg His Ala Ala Tyr Ser Val Gly Trp Glu Met Ala Pro Ala Gly Ala 340 345 350		
Pro Gly Pro Gly Arg Leu Val Ala Gln Leu Asp Thr Glu Gly Val Gly 355 360 365		
Ser Leu Gly Pro Gly Tyr Glu Gly Arg His Ile Ala Met Glu Lys Val 370 375 380		
Ala Ser Arg Thr Tyr Arg Leu Arg Leu Glu Ala Ala Arg Pro Gly Asp 385 390 395 400		
Ala Gly Thr Tyr Arg Cys Leu Ala Lys Ala Tyr Val Arg Gly Ser Gly 405 410 415		
Thr Arg Leu Arg Glu Ala Ala Ser Ala Arg Ser Arg Pro Leu Pro Val 420 425 430		
His Val Arg Glu Glu Gly Val Val Leu Glu Ala Val Ala Trp Leu Ala 435 440 445		
Gly Gly Thr Val Tyr Arg Gly Glu Thr Ala Ser Leu Leu Cys Asn Ile		

450                      455                      460  
 Ser Val Arg Gly Gly Pro Pro Gly Leu Arg Leu Ala Ala Ser Trp Trp  
 465                      470                      475                      480  
 Val Glu Arg Pro Glu Asp Gly Glu Leu Ser Ser Val Pro Ala Gln Leu  
                     485                      490                      495  
 Val Gly Gly Val Gly Gln Asp Gly Val Ala Xaa Leu Gly Val Arg Pro  
                     500                      505                      510  
 Gly Gly Gly Pro Val Ser Val Glu Leu Val Gly Pro Arg Ser His Arg  
                     515                      520                      525  
 Leu Arg Leu His Ser Leu Gly Pro Glu Asp Glu Gly Val Tyr His Cys  
                     530                      535                      540  
 Ala Pro Ser Ala Trp Val Gln His Ala Asp Tyr Ser Trp Tyr Gln Ala  
 545                      550                      555                      560  
 Gly Ser Ala Arg Ser Gly Pro Val Thr Val Tyr Pro Tyr Met His Ala  
                     565                      570                      575  
 Leu Asp Thr Leu Phe Val Pro Leu Leu Val Gly Thr Gly Val Ala Leu  
                     580                      585                      590  
 Val Thr Gly Ala Thr Val Leu Gly Thr Ile Thr Cys Cys Phe Met Lys  
                     595                      600                      605  
 Arg Leu Arg Lys Arg  
                     610

<210> 2175  
 <211> 60  
 <212> PRT  
 <213> Homo sapiens

<400> 2175  
 Met Ala Trp Ala Val Thr Leu Ile Leu Ser Leu Ser Arg Ala Val Arg  
   1                      5                      10                      15  
 Thr Gln Glu Val Pro Met Ala Leu Gln Ala His Ser Gly Ile Gln Leu  
                     20                      25                      30  
 Ala Ser Arg Val Gly Leu Pro Gly Pro Trp Pro Glu Cys Ser Thr Leu  
                     35                      40                      45  
 Ser Ser Arg Cys His Leu Ser Met Asp Ser Lys Val  
                     50                      55                      60

<210> 2176  
 <211> 396  
 <212> PRT  
 <213> Homo sapiens

<400> 2176

Met Trp Trp Leu Leu Leu Trp Gly Val Leu Gln Ala Cys Pro Thr Arg  
1 5 10 15

Gly Ser Val Leu Leu Ala Gln Glu Leu Pro Gln Gln Leu Thr Ser Pro  
20 25 30

Gly Tyr Pro Glu Pro Tyr Gly Lys Gly Gln Glu Ser Ser Thr Asp Ile  
35 40 45

Lys Ala Pro Glu Gly Phe Ala Val Arg Leu Val Phe Gln Asp Phe Asp  
50 55 60

Leu Glu Pro Ser Gln Asp Cys Ala Gly Asp Ser Val Thr Ile Ser Phe  
65 70 75 80

Val Gly Ser Asp Pro Ser Gln Phe Cys Gly Gln Gln Gly Ser Pro Leu  
85 90 95

Gly Arg Pro Pro Gly Gln Arg Glu Phe Val Ser Ser Gly Arg Ser Leu  
100 105 110

Arg Leu Thr Phe Arg Thr Gln Pro Ser Ser Glu Asn Lys Thr Ala His  
115 120 125

Leu His Lys Gly Phe Leu Ala Leu Tyr Gln Thr Val Ala Val Asn Tyr  
130 135 140

Ser Gln Pro Ile Ser Glu Ala Ser Arg Gly Ser Glu Ala Ile Asn Ala  
145 150 155 160

Pro Gly Asp Asn Pro Ala Lys Val Gln Asn His Cys Gln Glu Pro Tyr  
165 170 175

Tyr Gln Ala Ala Ala Ala Gly Ala Leu Thr Cys Ala Thr Pro Gly Thr  
180 185 190

Trp Lys Asp Arg Gln Asp Gly Glu Glu Val Leu Gln Cys Met Pro Val  
195 200 205

Cys Gly Arg Pro Val Thr Pro Ile Ala Gln Asn Gln Thr Thr Leu Gly  
210 215 220

Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala Phe Thr Ser  
225 230 235 240

Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg Trp Ile Leu  
245 250 255

Thr Ala Ala His Thr Ile Tyr Pro Lys Asp Ser Val Ser Leu Arg Lys  
260 265 270

Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile Asp Glu Met  
275 280 285

Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val His Pro Asp  
290 295 300

Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile Ala Leu Leu  
305 310 315 320

Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu Pro Val Cys  
                                   325                                  330                                  335  
 Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu Gly Tyr Val  
                                   340                                  345                                  350  
 Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu Leu Lys Tyr  
                                   355                                  360                                  365  
 Ser Arg Leu Pro Val Ala Pro Arg Glu Ala Cys Asn Ala Trp Leu Gln  
                                   370                                  375                                  380  
 Lys Arg Gln Arg Pro Glu Lys Lys Lys Lys Lys Lys  
                                   385                                  390                                  395

&lt;210&gt; 2177

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2177

Gly Thr Arg Thr Glu Arg Asp Glu Leu Leu Lys Asp Leu Gln Gln Ser  
   1                                  5                                  10                                  15  
 Ile Ala Arg Glu Pro Ser Ala Pro Ser Ile Pro Thr Pro Ala Tyr Gln  
                                   20                                  25                                  30  
 Ser Leu Pro Ala Gly Gly His Ala Pro Thr Pro Pro Thr Pro Ala Pro  
                                   35                                  40                                  45  
 Arg Thr Met Pro Pro Thr Lys Pro Gln Pro Pro Ala Arg Pro Pro Pro  
                                   50                                  55                                  60  
 Pro Val Leu Pro Ala Asn Arg Ala Pro Ser Ala Thr Ala Pro Ser Pro  
                                   65                                  70                                  75                                  80  
 Val Gly Ala Gly Thr Ala Ala Pro Ala Pro Ser Gln Thr Pro Gly Ser  
                                   85                                  90                                  95  
 Ala Pro Pro Pro Gln Ala Gln Gly Pro Pro Tyr Pro Thr Tyr Pro Gly  
                                   100                                  105                                  110  
 Tyr Pro Gly Tyr Cys Gln Met Pro Met Pro Met Gly Tyr Asn Pro Tyr  
                                   115                                  120                                  125  
 Ala Tyr Gly Gln Tyr Asn Met Pro Tyr Pro Pro Val Tyr His Gln Ser  
                                   130                                  135                                  140  
 Pro Gly Gln Ala Pro Tyr Pro Gly Pro Gln Gln Pro Ser Tyr Pro Phe  
                                   145                                  150                                  155                                  160  
 Pro Gln Pro Pro Gln Gln Ser Tyr Tyr Pro Gln Gln  
                                   165                                  170

&lt;210&gt; 2178

&lt;211&gt; 142

<212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (111)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 2173  
 Met His Gln Leu Leu Gln Leu Gln Arg Gln Glu Pro Cys Arg Leu Leu  
           1                  5                  10                  15  
 Ser Pro Ser Pro Gln Pro Gly Leu His His Leu Cys Phe Gln Gln Ile  
                   20                  25                  30  
 Glu Leu Leu Leu Leu Leu Leu His Leu Gln Trp Gly Leu Gly Leu Leu  
           35                  40                  45  
 Arg Gln Leu His His Lys Arg Leu Ala Gln Leu Leu Leu His Arg Arg  
           50                  55                  60  
 Arg Asp His Pro Ile Pro Pro Ile Gln Asp Ile Leu Gly Ile Ala Lys  
           65                  70                  75                  80  
 Cys Pro Cys Pro Trp Ala Ile Ile Leu Met Arg Met Ala Ser Ile Ile  
                   85                  90                  95  
 Cys His Ile His Gln Cys Ile Thr Arg Val Leu Asp Arg Leu Xaa Thr  
                   100                  105                  110  
 Arg Asp Pro Ser Ser Leu His Thr Pro Ser Leu Ser Pro His Ser Ser  
           115                  120                  125  
 Leu Thr Ile His Ser Ser Asn Met Ser Ala Gln Gln Leu Ser  
           130                  135                  140

<210> 2179  
 <211> 868  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (194)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (309)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (550)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 2179  
 Met Ala Thr Phe Ile Ser Val Gln Leu Lys Lys Thr Ser Glu Val Asp

1	5	10	15
Leu Ala Lys Pro Leu Val Lys Phe Ile Gln Gln Thr Tyr Pro Ser Gly	20	25	30
Gly Glu Glu Gln Ala Gln Tyr Cys Arg Ala Ala Glu Glu Leu Ser Lys	35	40	45
Leu Arg Arg Ala Ala Val Gly Arg Pro Leu Asp Lys His Glu Gly Ala	50	55	60
Leu Glu Thr Leu Leu Arg Tyr Tyr Asp Gln Ile Cys Ser Ile Glu Pro	65	70	75
Lys Phe Pro Phe Ser Glu Asn Gln Ile Cys Leu Thr Phe Thr Trp Lys	85	90	95
Asp Ala Phe Asp Lys Gly Ser Leu Phe Gly Gly Ser Val Lys Leu Ala	100	105	110
Leu Ala Ser Leu Gly Tyr Glu Lys Ser Cys Val Leu Phe Asn Cys Ala	115	120	125
Ala Leu Ala Ser Gln Ile Ala Ala Glu Gln Asn Leu Asp Asn Asp Glu	130	135	140
Gly Leu Lys Ile Ala Ala Lys His Tyr Gln Phe Ala Ser Gly Ala Phe	145	150	155
Leu His Ile Lys Glu Thr Val Leu Ser Ala Leu Ser Arg Glu Pro Thr	165	170	175
Val Asp Ile Ser Pro Asp Thr Val Gly Thr Leu Ser Leu Ile Met Leu	180	185	190
Ala Xaa Ala Gln Glu Val Phe Phe Leu Lys Ala Thr Arg Asp Lys Met	195	200	205
Lys Asp Ala Ile Ile Ala Lys Leu Ala Asn Gln Ala Ala Asp Tyr Phe	210	215	220
Gly Asp Ala Phe Lys Gln Cys Gln Tyr Lys Asp Thr Leu Pro Lys Glu	225	230	235
Val Phe Pro Val Leu Ala Ala Lys His Cys Ile Met Gln Ala Asn Ala	245	250	255
Glu Tyr His Gln Ser Ile Leu Ala Lys Gln Gln Lys Lys Phe Gly Glu	260	265	270
Glu Ile Ala Arg Leu Gln His Ala Ala Glu Leu Ile Lys Thr Val Ala	275	280	285
Ser Arg Tyr Asp Glu Tyr Val Asn Val Lys Asp Phe Ser Asp Lys Ile	290	295	300
Asn Arg Ala Leu Xaa Ala Ala Lys Lys Asp Asn Asp Phe Ile Tyr His	305	310	315
Asp Arg Val Pro Asp Leu Lys Asp Leu Asp Pro Ile Gly Lys Ala Thr			

325	330	335
Leu Val Lys Ser Thr Pro Val Asn Val Pro Ile Ser Gln Lys Phe Thr 340	345	350
Asp Leu Phe Glu Lys Met Val Pro Val Ser Val Gln Gln Ser Leu Ala 355	360	365
Ala Tyr Asn Gln Arg Lys Ala Asp Leu Val Asn Arg Ser Ile Ala Gln 370	375	380
Met Arg Glu Ala Thr Thr Leu Ala Asn Gly Val Leu Ala Ser Leu Asn 385	390	395
Leu Pro Ala Ala Ile Glu Asp Val Ser Gly Asp Thr Val Pro Gln Ser 405	410	415
Ile Leu Thr Lys Ser Arg Ser Val Ile Glu Gln Gly Gly Ile Gln Thr 420	425	430
Val Asp Gln Leu Ile Lys Glu Leu Pro Glu Leu Leu Gln Arg Asn Arg 435	440	445
Glu Ile Leu Asp Glu Ser Leu Arg Leu Leu Asp Glu Glu Glu Ala Thr 450	455	460
Asp Asn Asp Leu Arg Ala Lys Phe Lys Glu Arg Trp Gln Arg Thr Pro 465	470	475
Ser Asn Glu Leu Tyr Lys Pro Leu Arg Ala Glu Gly Thr Asn Phe Arg 485	490	495
Thr Val Leu Asp Lys Ala Val Gln Ala Asp Gly Gln Val Lys Glu Cys 500	505	510
Tyr Gln Ser His Arg Asp Thr Ile Val Leu Leu Cys Lys Pro Glu Pro 515	520	525
Glu Leu Asn Ala Ala Ile Pro Ser Ala Asn Pro Ala Lys Thr Met Gln 530	535	540
Gly Ser Glu Val Val Xaa Val Leu Lys Ser Leu Leu Ser Asn Leu Asp 545	550	555
Glu Val Lys Lys Glu Arg Glu Gly Leu Glu Asn Asp Leu Lys Ser Val 565	570	575
Asn Phe Asp Met Thr Ser Lys Phe Leu Thr Ala Leu Ala Gln Asp Gly 580	585	590
Val Ile Asn Glu Glu Ala Leu Ser Val Thr Glu Leu Asp Arg Val Tyr 595	600	605
Gly Gly Leu Thr Thr Lys Val Gln Glu Ser Leu Lys Lys Gln Glu Gly 610	615	620
Leu Leu Lys Asn Ile Gln Val Ser His Gln Glu Phe Ser Lys Met Lys 625	630	635
Gln Ser Asn Asn Glu Ala Asn Leu Arg Glu Glu Val Leu Lys Asn Leu		

645                                      650                                      655  
 Ala Thr Ala Tyr Asp Asn Phe Val Glu Leu Val Ala Asn Leu Lys Glu  
    660                                      665                                      670  
 Gly Thr Lys Phe Tyr Asn Glu Leu Thr Glu Ile Leu Val Arg Phe Gln  
    675                                      680                                      685  
 Asn Lys Cys Ser Asp Ile Val Phe Ala Arg Lys Thr Glu Arg Asp Glu  
    690                                      695                                      700  
 Leu Leu Lys Asp Leu Gln Gln Ser Ile Ala Arg Glu Pro Ser Ala Pro  
 705                                      710                                      715                                      720  
 Ser Ile Pro Thr Pro Ala Tyr Gln Ser Leu Pro Ala Gly Gly His Ala  
    725                                      730                                      735  
 Pro Thr Pro Pro Thr Pro Ala Pro Arg Thr Met Pro Pro Thr Lys Pro  
    740                                      745                                      750  
 Gln Pro Pro Ala Arg Pro Pro Pro Pro Val Leu Pro Ala Asn Arg Ala  
    755                                      760                                      765  
 Pro Ser Ala Thr Ala Pro Ser Pro Val Gly Ala Gly Thr Ala Ala Pro  
    770                                      775                                      780  
 Ala Pro Ser Gln Thr Pro Gly Ser Ala Pro Pro Pro Gln Ala Gln Gly  
 785                                      790                                      795                                      800  
 Pro Pro Tyr Pro Thr Tyr Pro Gly Tyr Pro Gly Tyr Cys Gln Met Pro  
    805                                      810                                      815  
 Met Pro Met Gly Tyr Asn Pro Tyr Ala Tyr Gly Gln Tyr Asn Met Pro  
    820                                      825                                      830  
 Tyr Pro Pro Val Tyr His Gln Ser Pro Gly Gln Ala Pro Tyr Pro Gly  
    835                                      840                                      845  
 Pro Gln Gln Pro Ser Tyr Pro Phe Pro Gln Pro Pro Gln Gln Ser Tyr  
    850                                      855                                      860  
 Tyr Pro Gln Gln  
 865

&lt;210&gt; 2180

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2180

Met Lys Pro Ala Thr Ala Ser Ala Leu Leu Leu Leu Leu Leu Gly Leu  
 1                                      5                                      10                                      15

Ala Trp Thr Gln Gly Ser His Gly Trp Gly Ala Asp Ala Ser Ser Leu  
    20                                      25                                      30

Gln Lys Arg Ala Gly Arg Ala Asp Gln Pro Gly Ala Gly Trp Gln Glu  
    35                                      40                                      45



Val Ala Ala Val Thr Ser Lys Asn Tyr Asn Tyr Asn Gln His Ala Tyr  
 50 55 60

Pro Thr Ala Tyr Gly Gly Lys Tyr Ser Val Lys Thr Pro Ala Lys Gly  
 65 70 75 80

Gly Val Ser Pro Ser Ser Ser Ala Ser Arg Val Gln Pro Gly Leu Leu  
 85 90 95

Gln Trp Val Lys Phe Trp  
 100

&lt;210&gt; 2181

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2181

Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly Leu Phe Val  
 1 5 10 15

Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu Val Tyr Val  
 20 25 30

Trp Ser Arg Xaa Asn Pro Tyr Val Arg Met Asn Phe Phe Gly Leu Leu  
 35 40 45

Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly Phe Ser Leu  
 50 55 60

Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile Ala Val Gly  
 65 70 75 80

His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln Pro Gly Gly  
 85 90 95

Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile Phe Asp Thr  
 100 105 110

Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu Arg Pro Gly  
 115 120 125

Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly  
 130 135 140

&lt;210&gt; 2182

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2182

Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp Phe Val Phe  
 1 5 10 15

Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly Leu Phe Val  
 20 25 30

Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu Val Tyr Val  
 35 40 45

Trp Ser Arg Arg Asn Pro Tyr Val Arg Met Asn Phe Phe Gly Leu Leu  
 50 55 60

Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly Phe Ser Leu  
 65 70 75 80

Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile Ala Val Gly  
 85 90 95

His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln Pro Gly Gly  
 100 105 110

Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile Phe Asp Thr  
 115 120 125

Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu Arg Pro Gly  
 130 135 140

Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly  
 145 150 155

&lt;210&gt; 2183

&lt;211&gt; 239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2183

Met Ala Tyr Gln Ser Leu Arg Leu Glu Tyr Leu Gln Ile Pro Pro Val  
 1 5 10 15

Ser Arg Ala Tyr Thr Thr Ala Cys Val Leu Thr Thr Ala Ala Val Gln  
 20 25 30

Leu Glu Leu Ile Thr Pro Phe Gln Leu Tyr Phe Asn Pro Glu Leu Ile  
 35 40 45

Phe Lys His Phe Gln Ile Trp Arg Leu Ile Thr Asn Phe Leu Phe Phe  
 50 55 60

Gly Pro Val Gly Phe Asn Phe Leu Phe Asn Met Ile Phe Leu Tyr Arg  
 65 70 75 80

Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp  
 85 90 95

Phe Val Phe Met Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly  
 100 105 110

Leu Phe Val Ser Leu Val Phe Leu Gly Gln Ala Phe Thr Ile Met Leu  
 115 120 125  
 Val Tyr Val Trp Ser Arg Arg Asn Pro Tyr Val Arg Met Asn Phe Phe  
 130 135 140  
 Gly Leu Leu Asn Phe Gln Ala Pro Phe Leu Pro Trp Val Leu Met Gly  
 145 150 155 160  
 Phe Ser Leu Leu Leu Gly Asn Ser Ile Ile Val Asp Leu Leu Gly Ile  
 165 170 175  
 Ala Val Gly His Ile Tyr Phe Phe Leu Glu Asp Val Phe Pro Asn Gln  
 180 185 190  
 Pro Gly Gly Ile Arg Ile Leu Lys Thr Pro Ser Ile Leu Lys Ala Ile  
 195 200 205  
 Phe Asp Thr Pro Asp Glu Asp Pro Asn Tyr Asn Pro Leu Pro Glu Glu  
 210 215 220  
 Arg Pro Gly Gly Phe Ala Trp Gly Glu Gly Gln Arg Leu Gly Gly  
 225 230 235

&lt;210&gt; 2184

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2184

Met Thr Leu Phe Gly Leu Phe Val Ser Leu Val Phe Leu Gly Gln Ala  
 1 5 10 15  
 Phe Thr Ile Met Leu Val Tyr Val Trp Ser Arg Arg Asn Pro Tyr Val  
 20 25 30  
 Arg Met Asn Phe Phe Gly Leu Leu Asn Phe Gln Ala Pro Phe Leu Pro  
 35 40 45  
 Trp Val Leu Met Gly Phe Ser Leu Leu Leu Gly Asn Ser Ile Ile Val  
 50 55 60  
 Asp Leu Leu Gly Ile Ala Val Gly His Ile Tyr Phe Phe Leu Glu Asp  
 65 70 75 80  
 Val Phe Pro Asn Gln Pro Gly Gly Ile Arg Ile Leu Lys Thr Pro Ser  
 85 90 95  
 Ile Leu Lys Ala Ile Phe Asp Thr Pro Asp Glu Asp Pro Asn Tyr Asn  
 100 105 110  
 Pro Leu Pro Glu Glu Arg Pro Gly Gly Phe Ala Trp Gly Glu Gly Gln  
 115 120 125  
 Arg Leu Gly Gly  
 130

&lt;210&gt; 2185

&lt;211&gt; 339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2185

```

Met Ser Trp Ser Thr Phe Leu Leu Ala Glu Ala Cys Gly Phe Thr Gly
  1              5              10              15

Val Val Ala Val Leu Phe Cys Gly Ile Thr Gln Ala His Tyr Thr Tyr
      20              25              30

Asn Asn Leu Ser Val Glu Ser Arg Ser Arg Thr Lys Gln Leu Phe Glu
      35              40              45

Val Leu His Phe Leu Ala Glu Asn Phe Ile Phe Ser Tyr Met Gly Leu
      50              55              60

Ala Leu Phe Thr Phe Gln Lys His Val Phe Ser Pro Ile Phe Ile Ile
      65              70              75              80

Gly Ala Phe Val Ala Ile Phe Leu Gly Arg Ala Ala His Ile Tyr Pro
      85              90              95

Leu Ser Phe Phe Leu Asn Leu Gly Arg Arg His Lys Ile Gly Trp Asn
      100             105             110

Phe Gln His Met Met Met Phe Ser Gly Leu Arg Gly Ala Met Ala Phe
      115             120             125

Ala Leu Ala Ile Arg Asp Thr Ala Ser Tyr Ala Arg Gln Met Met Phe
      130             135             140

Thr Thr Thr Leu Leu Ile Val Phe Phe Thr Val Trp Ile Ile Gly Gly
      145             150             155             160

Gly Thr Thr Pro Met Leu Ser Trp Leu Asn Ile Arg Val Gly Val Asp
      165             170             175

Pro Asp Gln Asp Pro Pro Pro Asn Asn Asp Ser Phe Gln Val Leu Gln
      180             185             190

Gly Asp Gly Pro Asp Ser Ala Arg Gly Asn Arg Thr Lys Gln Glu Ser
      195             200             205

Ala Trp Ile Phe Arg Leu Trp Tyr Ser Phe Asp His Asn Tyr Leu Lys
      210             215             220

Pro Ile Leu Thr His Ser Gly Pro Pro Leu Thr Thr Thr Leu Pro Ala
      225             230             235             240

Trp Cys Gly Leu Leu Ala Arg Cys Leu Thr Ser Pro Gln Val Tyr Asp
      245             250             255

Asn Gln Glu Pro Leu Arg Glu Glu Asp Ser Asp Phe Ile Leu Thr Glu
      260             265             270

Gly Asp Leu Thr Leu Thr Tyr Gly Asp Ser Thr Val Thr Ala Asn Gly
      275             280             285

```

Ser Ser Ser Ser His Thr Ala Ser Thr Ser Leu Glu Gly Ser Arg Arg  
 290 295 300

Thr Lys Ser Ser Ser Glu Glu Val Leu Glu Arg Asp Leu Gly Met Gly  
 305 310 315 320

Asp Gln Lys Val Ser Ser Arg Gly Thr Arg Leu Val Phe Pro Leu Glu  
 325 330 335

Asp Asn Ala

<210> 2186

<211> 339

<212> PRT

<213> Homo sapiens

<400> 2186

Met Ser Trp Ser Thr Phe Leu Leu Ala Glu Ala Cys Gly Phe Thr Gly  
 1 5 10 15

Val Val Ala Val Leu Phe Cys Gly Ile Thr Gln Ala His Tyr Thr Tyr  
 20 25 30

Asn Asn Leu Ser Val Glu Ser Arg Ser Arg Thr Lys Gln Leu Phe Glu  
 35 40 45

Val Leu His Phe Leu Ala Glu Asn Phe Ile Phe Ser Tyr Met Gly Leu  
 50 55 60

Ala Leu Phe Thr Phe Gln Lys His Val Phe Ser Pro Ile Phe Ile Ile  
 65 70 75 80

Gly Ala Phe Val Ala Ile Phe Leu Gly Arg Ala Ala His Ile Tyr Pro  
 85 90 95

Leu Ser Phe Phe Leu Asn Leu Gly Arg Arg His Lys Ile Gly Trp Asn  
 100 105 110

Phe Gln His Met Met Met Phe Ser Gly Leu Arg Gly Ala Met Ala Phe  
 115 120 125

Ala Leu Ala Ile Arg Asp Thr Ala Ser Tyr Ala Arg Gln Met Met Phe  
 130 135 140

Thr Thr Thr Leu Leu Ile Val Phe Phe Thr Val Trp Ile Ile Gly Gly  
 145 150 155 160

Gly Thr Thr Pro Met Leu Ser Trp Leu Asn Ile Arg Val Gly Val Asp  
 165 170 175

Pro Asp Gln Asp Pro Pro Pro Asn Asn Asp Ser Phe Gln Val Leu Gln  
 180 185 190

Gly Asp Gly Pro Asp Ser Ala Arg Gly Asn Arg Thr Lys Gln Glu Ser  
 195 200 205

Ala Trp Ile Phe Arg Leu Trp Tyr Ser Phe Asp His Asn Tyr Leu Lys  
 210 215 220

Pro Ile Leu Thr His Ser Gly Pro Pro Leu Thr Thr Thr Leu Pro Ala  
 225 230 235 240

Trp Cys Gly Leu Leu Ala Arg Cys Leu Thr Ser Pro Gln Val Tyr Asp  
 245 250 255

Asn Gln Glu Pro Leu Arg Glu Glu Asp Ser Asp Phe Ile Leu Thr Glu  
 260 265 270

Gly Asp Leu Thr Leu Thr Tyr Gly Asp Ser Thr Val Thr Ala Asn Gly  
 275 280 285

Ser Ser Ser Ser His Thr Ala Ser Thr Ser Leu Glu Gly Ser Arg Arg  
 290 295 300

Thr Lys Ser Ser Ser Glu Glu Val Leu Glu Arg Asp Leu Gly Met Gly  
 305 310 315 320

Asp Gln Lys Val Ser Ser Arg Gly Thr Arg Leu Val Phe Pro Leu Glu  
 325 330 335

Asp Asn Ala

<210> 2187

<211> 509

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (168)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (198)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (199)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (244)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE  
 <222> (246)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (294)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (301)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (303)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (493)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (498)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (499)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (505)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 2187  
 Met Glu Glu Leu Ala Thr Glu Lys Glu Ala Glu Glu Ser His Arg Gln  
     1                    5                    10                    15  
 Asp Ser Val Xaa Leu Leu Thr Phe Ile Leu Leu Thr Leu Thr Ile  
                     20                    25                    30  
 Leu Thr Ile Trp Leu Phe Lys His Arg Arg Val Arg Phe Leu His Glu  
                     35                    40                    45  
 Thr Gly Leu Ala Met Ile Tyr Gly Leu Ile Val Gly Val Ile Leu Arg  
                     50                    55                    60  
 Tyr Gly Thr Pro Ala Thr Ser Gly Arg Asp Lys Ser Leu Ser Cys Thr  
                     65                    70                    75                    80  
 Gln Glu Asp Arg Ala Phe Ser Thr Leu Leu Val Asn Val Ser Gly Lys  
                     85                    90                    95  
 Phe Phe Glu Tyr Thr Leu Lys Gly Glu Ile Ser Pro Gly Lys Ile Asn  
                     100                    105                    110

Ser Val Glu Gln Asn Asp Met Leu Arg Lys Val Thr Phe Asp Pro Glu  
 115 120 125  
 Val Phe Phe Asn Ile Leu Leu Pro Pro Ile Ile Phe His Ala Gly Tyr  
 130 135 140  
 Ser Leu Lys Lys Arg His Phe Phe Arg Asn Leu Gly Ser Ile Leu Ala  
 145 150 155 160  
 Tyr Ala Phe Leu Gly Thr Ala Xaa Ser Cys Phe Ile Ile Gly Asn Leu  
 165 170 175  
 Met Tyr Gly Val Val Lys Leu Met Lys Ile Met Gly Gln Leu Ser Asp  
 180 185 190  
 Lys Phe Tyr Tyr Thr Xaa Xaa Leu Phe Phe Gly Ala Ile Ile Ser Ala  
 195 200 205  
 Thr Asp Pro Val Thr Val Leu Ala Ile Phe Asn Glu Leu His Ala Asp  
 210 215 220  
 Val Asp Leu Tyr Ala Leu Leu Phe Gly Glu Ser Val Leu Asn Asp Ala  
 225 230 235 240  
 Val Ala Ile Xaa Leu Xaa Ser Ser Ile Val Ala Tyr Gln Pro Ala Gly  
 245 250 255  
 Leu Asn Thr His Ala Phe Asp Ala Ala Ala Phe Phe Lys Ser Val Gly  
 260 265 270  
 Ile Phe Leu Gly Ile Phe Ser Gly Ser Phe Thr Met Gly Ala Val Thr  
 275 280 285  
 Gly Val Val Thr Ala Xaa Val Thr Lys Phe Thr Lys Xaa His Xaa Phe  
 290 295 300  
 Pro Leu Leu Glu Thr Ala Leu Phe Phe Leu Met Ser Trp Ser Thr Phe  
 305 310 315 320  
 Leu Leu Ala Glu Ala Cys Gly Phe Thr Gly Val Val Ala Val Leu Phe  
 325 330 335  
 Cys Gly Ile Thr Gln Ala His Tyr Thr Tyr Asn Asn Leu Ser Val Glu  
 340 345 350  
 Ser Arg Ser Arg Thr Lys Gln Leu Phe Glu Val Leu His Phe Leu Ala  
 355 360 365  
 Glu Asn Phe Ile Phe Ser Tyr Met Gly Leu Ala Leu Phe Thr Phe Gln  
 370 375 380  
 Lys His Val Phe Ser Pro Ile Phe Ile Ile Gly Ala Phe Val Ala Ile  
 385 390 395 400  
 Phe Leu Gly Arg Ala Ala His Ile Tyr Pro Leu Ser Phe Phe Leu Asn  
 405 410 415  
 Leu Gly Arg Arg His Lys Ile Gly Trp Asn Phe Gln His Met Met Met  
 420 425 430



Phe Ser Gly Leu Arg Gly Ala Met Ala Phe Ala Leu Ala Ile Arg Asp  
435 440 445

Thr Ala Ser Tyr Ala Arg Gln Met Met Phe Thr Thr Thr Leu Leu Ile  
450 455 460

Val Phe Phe Thr Val Trp Ile Ile Gly Gly Gly Thr Thr Pro Met Leu  
465 470 475 480

Ser Trp Leu Asn Ile Arg Val Gly Val Asp Pro Asp Xaa Asp Pro Pro  
485 490 495

Pro Xaa Xaa Asp Ser Phe Ala Phe Xaa Thr Glu Thr Ala  
500 505

<210> 2188

<211> 146

<212> PRT

<213> Homo sapiens

<400> 2188

Met Thr Met Arg Ser Leu Leu Arg Thr Pro Phe Leu Cys Gly Leu Leu  
1 5 10 15

Trp Ala Phe Cys Ala Pro Gly Ala Arg Ala Glu Glu Pro Ala Ala Ser  
20 25 30

Phe Ser Gln Pro Gly Ser Met Gly Leu Asp Lys Asn Thr Val His Asp  
35 40 45

Gln Glu His Ile Met Glu His Leu Glu Gly Val Ile Asn Lys Pro Glu  
50 55 60

Ala Glu Met Ser Pro Gln Glu Leu Gln Leu His Tyr Phe Lys Met His  
65 70 75 80

Asp Tyr Asp Gly Asn Asn Leu Leu Asp Gly Leu Glu Leu Ser Thr Ala  
85 90 95

Ile Thr His Val His Lys Glu Glu Gly Ser Glu Gln Ala Pro Leu Met  
100 105 110

Ser Glu Asp Glu Leu Ile Asn Ile Ile Asp Gly Val Leu Arg Asp Asp  
115 120 125

Asp Lys Asn Asn Asp Gly Tyr Ile Asp Tyr Ala Glu Phe Ala Lys Ser  
130 135 140

Leu Gln  
145

<210> 2189

<211> 530

<212> PRT

<213> Homo sapiens

<220>  
 <221> SITE  
 <222> (488)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (490)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (494)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (495)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (505)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 2189  
 Met Glu Phe Gly Leu Thr Trp Val Phe Leu Val Ala Leu Leu Arg Gly  
   1                  5                  10                  15  
 Val His Cys Gln Val Gln Leu Val Glu Ser Gly Gly Ala Val Val Gln  
                   20                  25                  30  
 Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe  
           35                  40                  45  
 Ser Arg Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu  
           50                  55                  60  
 Gln Trp Leu Ala Leu Val Leu His Asp Gly Gly Gln Lys Tyr Asn Glu  
   65                  70                  75                  80  
 Asp Val Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn Asn  
                   85                  90                  95  
 Lys Val Tyr Leu Gln Met Asp Ser Leu Arg Gly Glu Asp Thr Ala Thr  
           100                  105                  110  
 Tyr Tyr Cys Val Arg Gly Met Trp Glu Gln Leu Pro Ser Tyr Tyr Phe  
           115                  120                  125  
 Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Pro  
           130                  135                  140  
 Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr Gln Pro Asp  
   145                  150                  155                  160  
 Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe Pro Gln Glu  
                   165                  170                  175

Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val Thr Ala Arg  
 180 135 190  
 Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly Asp Leu Tyr Thr Thr Ser  
 195 200 205  
 Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly Lys Ser Val  
 210 215 220  
 Thr Cys His Val Lys His Tyr Thr Asn Pro Ser Gln Asp Val Thr Val  
 225 230 235 240  
 Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro Ser Thr Pro  
 245 250 255  
 Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser Leu His Arg  
 260 265 270  
 Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn Leu Thr Cys  
 275 280 285  
 Thr Leu Thr Gly Leu Arg Asp Ala Ser Gly Val Thr Phe Thr Trp Thr  
 290 295 300  
 Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Asp Arg Asp Leu  
 305 310 315 320  
 Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys Ala Glu Pro  
 325 330 335  
 Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr Pro Glu Ser  
 340 345 350  
 Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn Thr Phe Arg  
 355 360 365  
 Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu Ala Leu Asn  
 370 375 380  
 Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser Pro Lys Asp  
 385 390 395 400  
 Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro Arg Glu Lys  
 405 410 415  
 Tyr Leu Thr Trp Ala Ser Arg Gln Glu Pro Ser Gln Gly Thr Thr Thr  
 420 425 430  
 Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp Trp Lys Lys  
 435 440 445  
 Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu Pro Leu Ala  
 450 455 460  
 Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro Thr His Val  
 465 470 475 480  
 Asn Val Ser Val Val Met Ala Xaa Val Xaa Gly Pro Cys Xaa Xaa Ala  
 485 490 495

Ala Arg Leu Ser Pro Pro Leu Asn Xaa Leu His Ala Pro Pro Lys Lys  
 500 505 510

Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 515 520 525

Lys Lys  
 530

<210> 2190  
 <211> 265  
 <212> PRT  
 <213> Homo sapiens

<400> 2190

Met Gly Gly Gln Val Ala Gly Val Tyr Ala Ala Tyr Tyr Pro Ser Asp  
 1 5 10 15

Val Ser Ser Leu Cys Leu Val Cys Pro Ala Gly Leu Gln Tyr Ser Thr  
 20 25 30

Asp Asn Gln Phe Val Gln Arg Leu Lys Glu Leu Gln Gly Ser Ala Ala  
 35 40 45

Val Glu Lys Ile Pro Leu Ile Pro Ser Thr Pro Glu Glu Met Ser Glu  
 50 55 60

Met Leu Gln Leu Cys Ser Tyr Val Arg Phe Lys Val Pro Gln Gln Ile  
 65 70 75 80

Leu Gln Gly Leu Val Asp Val Arg Ile Pro His Asn Asn Phe Tyr Arg  
 85 90 95

Lys Leu Phe Leu Glu Ile Val Ser Glu Lys Ser Arg Tyr Ser Leu His  
 100 105 110

Gln Asn Met Asp Lys Ile Lys Val Pro Thr Gln Ile Ile Trp Gly Lys  
 115 120 125

Gln Asp Ala Gly Ala Gly Cys Val Trp Gly Arg His Val Gly Gln Val  
 130 135 140

Asn Cys Gln Leu Pro Gly Gly Ala Ser Gly Lys Leu Trp Ala Leu Ser  
 145 150 155 160

Ser Asp Gly Lys Thr Gln Glu Asp Ser Gln Ala His Asn Arg Leu Phe  
 165 170 175

Ser Phe Cys Ala Gln His Arg Gln Gln Gln Glu Ala Gly Leu Arg Pro  
 180 185 190

Arg Leu Gln Pro Ala Phe Cys Thr Gln His Leu Leu Pro Ser Pro Lys  
 195 200 205

Ser Asp Ala Ala Thr Thr Leu Arg Asp Pro Ala Pro Asn Ala Val Gly  
 210 215 220

Ala Pro Val Thr Leu Arg Lys Pro Val Pro Tyr Pro Trp Tyr Pro Arg

```

225                230                235                240
Phe Pro Arg Ala Leu Gly Thr Thr Arg Lys Pro Pro Arg Tyr Phe Ser
                245                250                255

Gln Asn Arg Asn Ser Tyr Gly Thr Lys
                260                265

```

```
<210> 2191
<211> 99
<212> PRT
<213> Homo sapiens
```

```

<400> 2191
Met Ala Val Trp Gly Asp Thr Glu Leu Ala Ala Gly Val Phe Cys Phe
  1             5             10             15

Phe Leu Phe Phe Cys Phe Leu Tyr Leu Ser Gly Thr Trp Asn Ala Ser
      20             25             30

Lys Thr Glu Leu Phe Thr Pro Leu Glu Arg Glu Leu Lys Pro Gly His
      35             40             45

Pro Ser Gly Met Leu Ser Gly Ser His Pro His Gly Ala Gln Gln Ala
  50             55             60

Lys Ser Thr Gly Leu Lys Leu Ser Leu Pro Ala Gln Gln Ser Glu Val
  65             70             75             80

Asp Leu Gly Cys Ser Ser Leu Val Trp Gly Gly Ala Ser Ala Ile Thr
      85             90             95

Glu Ala Leu

```

```
<210> 2192
<211> 144
<212> PRT
<213> Homo sapiens
```

```

<400> 2192
Met Pro Thr Thr Thr Glu Gln Pro Val Thr Thr Thr Phe Pro Val Thr
  1                      5                      10                      15

Thr Gly Leu Lys Pro Thr Val Ala Leu Cys Gln Gln Lys Cys Arg Arg
      20                      25                      30

Thr Gly Thr Leu Glu Gly Asn Tyr Cys Ser Ser Asp Phe Val Leu Ala
      35                      40                      45

Gly Thr Val Ile Thr Thr Ile Thr Arg Asp Gly Ser Leu His Ala Thr
      50                      55                      60

Val Ser Ile Ile Asn Ile Tyr Lys Glu Gly Asn Leu Ala Ile Gln Gln
      65                      70                      75                      80

```

Ala Gly Lys Asn Met Ser Ala Arg Leu Thr Val Val Cys Lys Gln Cys  
                                     85                                    90                                    95

Pro Leu Leu Arg Arg Gly Leu Asn Tyr Ile Ile Met Gly Gln Val Gly  
                                     100                                    105                                    110

Glu Asp Gly Arg Gly Lys Ile Met Pro Asn Ser Phe Ile Met Met Phe  
                                     115                                    120                                    125

Lys Thr Lys Asn Gln Lys Leu Leu Asp Ala Leu Lys Asn Lys Gln Cys  
                                     130                                    135                                    140

<210> 2193

<211> 294

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2193

Met Met Val Gln Met Ile Ser Asp Ala Asn Thr Ala Gly Asn Gly Phe  
     1                                    5                                    10                                    15

Met Ala Met Phe Ser Ala Ala Glu Pro Asn Glu Arg Gly Asp Gln Tyr  
                                     20                                    25                                    30

Cys Gly Gly Leu Leu Asp Arg Pro Ser Gly Ser Phe Lys Thr Pro Asn  
                                     35                                    40                                    45

Trp Pro Asp Arg Asp Tyr Pro Ala Gly Val Thr Cys Val Trp His Ile  
                                     50                                    55                                    60

Val Ala Pro Lys Asn Gln Leu Ile Glu Leu Lys Phe Glu Lys Phe Asp  
                                     65                                    70                                    75                                    80

Val Glu Arg Asp Asn Tyr Cys Arg Tyr Asp Tyr Val Xaa Val Phe Asn  
                                     85                                    90                                    95

Xaa Gly Glu Val Asn Asp Ala Arg Arg Ile Gly Lys Tyr Cys Gly Asp  
                                     100                                    105                                    110

Ser Pro Pro Ala Pro Ile Val Ser Glu Arg Asn Glu Leu Leu Ile Gln  
                                     115                                    120                                    125

Phe Leu Ser Asp Leu Ser Leu Thr Ala Asp Gly Phe Ile Gly His Tyr  
                                     130                                    135                                    140

Ile Phe Arg Pro Lys Lys Leu Pro Thr Thr Thr Glu Gln Pro Val Thr  
 145 150 155 160  
 Thr Thr Phe Pro Val Thr Thr Gly Leu Lys Pro Thr Val Ala Leu Cys  
 165 170 175  
 Gln Gln Lys Cys Arg Arg Thr Gly Thr Leu Glu Gly Asn Tyr Cys Ser  
 180 185 190  
 Ser Asp Phe Val Leu Ala Gly Thr Val Ile Thr Thr Ile Thr Arg Asp  
 195 200 205  
 Gly Ser Leu His Ala Thr Val Ser Ile Ile Asn Ile Tyr Lys Glu Gly  
 210 215 220  
 Asn Leu Ala Ile Gln Gln Ala Gly Lys Asn Met Ser Ala Arg Leu Thr  
 225 230 235 240  
 Val Val Cys Lys Gln Cys Pro Leu Leu Arg Arg Gly Leu Asn Tyr Ile  
 245 250 255  
 Ile Met Gly Gln Val Gly Glu Asp Gly Arg Gly Lys Ile Met Pro Asn  
 260 265 270  
 Ser Phe Ile Met Met Phe Lys Thr Lys Asn Gln Lys Leu Leu Asp Ala  
 275 280 285  
 Leu Lys Asn Lys Gln Cys  
 290

&lt;210&gt; 2194

&lt;211&gt; 487

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2194

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp  
 1 5 10 15  
 Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys  
 20 25 30  
 Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile  
 35 40 45  
 Ser Ser Gly Gly His Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys  
 50 55 60  
 Gly Leu Glu Trp Ile Gly Tyr Ile Ser Tyr Asn Gly Val Thr Tyr Tyr  
 65 70 75 80  
 Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Gln  
 85 90 95  
 Asn Gln Phe Ser Leu Arg Leu Ser Ser Val Thr Ala Ala Asp Thr Ala  
 100 105 110  
 Val Tyr Tyr Cys Ala Lys Asp His Arg Ala Thr Arg Asp Gly Tyr Gln

115	120	125
Leu Glu Tyr Arg Gly Phe Asp Tyr Trp Gly Gln Gly Ile Leu Val Thr 130 135 140		
Val Ser Ser Ala Ser Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu 145 150 155 160		
Asp Ser Thr Pro Gln Asp Gly Asn Val Val Val Ala Cys Leu Val Gln 165 170 175		
Gly Phe Phe Pro Gln Glu Pro Leu Ser Val Thr Trp Ser Glu Ser Gly 180 185 190		
Gln Asn Val Thr Ala Arg Asn Phe Pro Pro Ser Gln Asp Ala Ser Gly 195 200 205		
Asp Leu Tyr Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys 210 215 220		
Pro Asp Gly Lys Ser Val Thr Cys His Val Lys His Tyr Thr Asn Pro 225 230 235 240		
Ser Gln Asp Val Thr Val Pro Cys Pro Val Pro Pro Pro Pro Cys 245 250 255		
Cys His Pro Arg Leu Ser Leu His Arg Pro Ala Leu Glu Asp Leu Leu 260 265 270		
Leu Gly Ser Glu Ala Asn Leu Thr Cys Thr Leu Thr Gly Leu Arg Asp 275 280 285		
Ala Ser Gly Ala Thr Phe Thr Trp Thr Pro Ser Ser Gly Lys Ser Ala 290 295 300		
Val Gln Gly Pro Pro Glu Arg Asp Leu Cys Gly Cys Tyr Ser Val Ser 305 310 315 320		
Ser Val Leu Pro Gly Cys Ala Gln Pro Trp Asn His Gly Glu Thr Phe 325 330 335		
Thr Cys Thr Ala Ala His Pro Glu Leu Lys Thr Pro Leu Thr Ala Asn 340 345 350		
Ile Thr Lys Ser Gly Asn Thr Phe Arg Pro Glu Val His Leu Leu Pro 355 360 365		
Pro Pro Ser Glu Glu Leu Ala Leu Asn Glu Leu Val Thr Leu Thr Cys 370 375 380		
Leu Ala Arg Gly Phe Ser Pro Lys Asp Val Leu Val Arg Trp Leu Gln 385 390 395 400		
Gly Ser Gln Glu Leu Pro Arg Glu Lys Tyr Leu Thr Trp Ala Ser Arg 405 410 415		
Gln Glu Pro Ser Gln Gly Thr Thr Thr Phe Ala Val Thr Ser Ile Leu 420 425 430		
Arg Val Ala Ala Glu Asp Trp Lys Lys Gly Asp Thr Phe Ser Cys Met 1455		



435                      440                      445  
 Val Gly His Glu Ala Leu Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp  
 450                      455                      460  
 Arg Leu Ala Gly Lys Pro Thr His Val Asn Val Ser Val Val Met Ala  
 465                      470                      475                      480  
 Glu Val Asp Gly Thr Cys Tyr  
 485

<210> 2195  
 <211> 189  
 <212> PRT  
 <213> Homo sapiens

<400> 2195  
 Met Gly Gly Gln Val Ala Gly Val Tyr Ala Ala Tyr Tyr Pro Ser Asp  
 1                      5                      10                      15  
 Val Ser Ser Leu Cys Leu Val Cys Pro Ala Gly Leu Gln Tyr Ser Thr  
 20                      25                      30  
 Asp Asn Gln Phe Val Gln Arg Leu Lys Glu Leu Gln Gly Ser Ala Ala  
 35                      40                      45  
 Val Glu Lys Ile Pro Leu Ile Pro Ser Thr Pro Glu Glu Met Ser Glu  
 50                      55                      60  
 Met Leu Gln Leu Cys Ser Tyr Val Arg Phe Lys Val Pro Gln Gln Ile  
 65                      70                      75                      80  
 Leu Gln Gly Leu Val Asp Val Arg Ile Pro His Asn Asn Phe Tyr Arg  
 85                      90                      95  
 Lys Leu Phe Leu Glu Ile Val Ser Glu Lys Ser Arg Tyr Ser Leu His  
 100                      105                      110  
 Gln Asn Met Asp Lys Ile Lys Val Pro Thr Gln Ile Ile Trp Gly Lys  
 115                      120                      125  
 Gln Asp Gln Val Leu Asp Val Ser Gly Ala Asp Met Leu Ala Lys Ser  
 130                      135                      140  
 Ile Ala Asn Cys Gln Val Glu Leu Leu Glu Asn Cys Gly His Ser Val  
 145                      150                      155                      160  
 Val Met Glu Arg Pro Arg Lys Thr Ala Lys Leu Ile Ile Asp Phe Leu  
 165                      170                      175  
 Ala Ser Val His Asn Thr Asp Asn Asn Lys Lys Leu Asp  
 180                      185

<210> 2196  
 <211> 298  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2196

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Val Pro Leu  
 1 5 10 15  
 Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp  
 20 25 30  
 Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu  
 35 40 45  
 Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile  
 50 55 60  
 Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr  
 65 70 75 80  
 Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu  
 85 90 95  
 Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp  
 100 105 110  
 Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe  
 115 120 125  
 Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn  
 130 135 140  
 Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp  
 145 150 155 160  
 Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu  
 165 170 175  
 Asn Gln Leu Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe  
 180 185 190  
 Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala  
 195 200 205  
 Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala  
 210 215 220  
 Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His  
 225 230 235 240  
 Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys  
 245 250 255  
 Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu  
 260 265 270  
 Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys  
 275 280 285  
 Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe  
 290 295

&lt;210&gt; 2197

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2197

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Val Pro Leu  
 1 5 10 15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp  
 20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu  
 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile  
 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr  
 65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu  
 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp  
 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe  
 115 120 125

Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn  
 130 135 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp  
 145 150 155 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu  
 165 170 175

Asn Gln Leu Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe  
 180 185 190

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala  
 195 200 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala  
 210 215 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His  
 225 230 235 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys  
 245 250 255

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu  
 260 265 270

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys

275

280

285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe  
 290 295

&lt;210&gt; 2198

&lt;211&gt; 42

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2198

Met Glu Cys Lys Lys Arg Ile Gln Leu Ile Met Leu Ala Ser Ile Val  
 1 5 10 15

Arg Leu Pro Pro Thr Glu Gln Ser Gly Leu Leu Lys Thr Arg Phe His  
 20 25 30

Asn Phe Cys Gln Arg Asn Leu Gln Ser Ser  
 35 40

&lt;210&gt; 2199

&lt;211&gt; 472

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2199

Met Ile Arg Thr Arg Arg Gly Trp Ser Ser Met Trp Pro Trp Ile Gly  
 1 5 10 15

Val Gly Tyr Leu Ala Gly Cys Leu Val His Ala Leu Gly Glu Lys Gln  
 20 25 30

Pro Glu Leu Gln Ile Ser Glu Arg Asp Val Leu Cys Val Gln Ile Ala  
 35 40 45

Gly Leu Cys His Asp Leu Gly His Gly Pro Phe Ser His Met Phe Asp  
 50 55 60

Gly Arg Phe Ile Pro Leu Ala Arg Pro Glu Val Lys Trp Thr His Glu  
 65 70 75 80

Gln Gly Ser Val Met Met Phe Glu His Leu Ile Asn Ser Asn Gly Ile  
 85 90 95

Lys Pro Val Met Glu Gln Tyr Gly Leu Ile Pro Glu Glu Asp Ile Cys  
 100 105 110

Phe Ile Lys Glu Gln Ile Val Gly Pro Leu Glu Ser Pro Val Glu Asp  
 115 120 125

Ser Leu Trp Pro Tyr Lys Gly Arg Pro Glu Asn Lys Ser Phe Leu Tyr  
 130 135 140

Glu Ile Val Ser Asn Lys Arg Asn Gly Ile Asp Val Asp Lys Trp Asp  
 145 150 155 160

Tyr Phe Ala Arg Asp Cys His His Leu Gly Ile Gln Asn Asn Phe Asp  
 165 170 175  
 Tyr Lys Arg Phe Ile Lys Phe Ala Arg Val Cys Glu Val Asp Asn Glu  
 180 185 190  
 Leu Arg Ile Cys Ala Arg Asp Lys Glu Val Gly Asn Leu Tyr Asp Met  
 195 200 205  
 Phe His Thr Arg Asn Ser Leu His Arg Arg Ala Tyr Gln His Lys Val  
 210 215 220  
 Gly Asn Ile Ile Asp Thr Met Ile Thr Asp Ala Phe Leu Glu Ala Asp  
 225 230 235 240  
 Asp Tyr Ile Glu Ile Thr Gly Ala Gly Gly Lys Lys Tyr Arg Ile Ser  
 245 250 255  
 Thr Ala Ile Asp Asp Met Glu Ala Tyr Thr Lys Leu Thr Asp Asn Ile  
 260 265 270  
 Phe Leu Glu Ile Leu Tyr Ser Thr Asp Pro Lys Leu Lys Asp Ala Arg  
 275 280 285  
 Glu Ile Leu Lys Gln Ile Glu Tyr Arg Asn Leu Phe Lys Tyr Val Gly  
 290 295 300  
 Glu Thr Gln Pro Thr Gly Gln Ile Lys Ile Lys Arg Glu Asp Tyr Glu  
 305 310 315 320  
 Ser Leu Pro Lys Glu Val Ala Ser Ala Lys Pro Lys Val Leu Leu Asp  
 325 330 335  
 Val Lys Leu Lys Ala Glu Asp Phe Ile Val Asp Val Ile Asn Met Asp  
 340 345 350  
 Tyr Gly Met Gln Glu Lys Asn Pro Ile Asp His Val Ser Phe Tyr Cys  
 355 360 365  
 Lys Thr Ala Pro Asn Arg Ala Ile Arg Ile Thr Lys Asn Gln Val Ser  
 370 375 380  
 Gln Leu Leu Pro Glu Lys Phe Ala Glu Gln Leu Ile Arg Val Tyr Cys  
 385 390 395 400  
 Lys Lys Val Asp Arg Lys Ser Leu Tyr Ala Ala Arg Gln Tyr Phe Val  
 405 410 415  
 Gln Trp Cys Ala Asp Arg Asn Phe Thr Lys Pro Gln Asp Gly Asp Val  
 420 425 430  
 Ile Ala Pro Leu Ile Thr Pro Gln Lys Lys Glu Trp Asn Asp Ser Thr  
 435 440 445  
 Ser Val Gln Asn Pro Thr Arg Leu Arg Glu Ala Ser Lys Ser Arg Val  
 450 455 460  
 Gln Leu Phe Lys Asp Asp Pro Met  
 465 470

<210> 2200  
 <211> 626  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (353)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (354)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (363)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 2200  
 Met Gln Arg Ala Asp Ser Glu Gln Pro Ser Lys Arg Pro Arg Cys Asp  
     1                    5                    10                    15  
 Asp Ser Pro Arg Thr Pro Ser Asn Thr Pro Ser Ala Glu Ala Asp Trp  
                     20                    25                    30  
 Ser Pro Gly Leu Glu Leu His Pro Asp Tyr Lys Thr Trp Gly Pro Glu  
                     35                    40                    45  
 Gln Val Cys Ser Phe Leu Arg Arg Gly Gly Phe Glu Glu Pro Val Leu  
                     50                    55                    60  
 Leu Lys Asn Ile Arg Glu Asn Glu Ile Thr Gly Ala Leu Leu Pro Cys  
                     65                    70                    75                    80  
 Leu Asp Glu Ser Arg Phe Glu Asn Leu Gly Val Ser Ser Leu Gly Glu  
                     85                    90                    95  
 Arg Lys Lys Leu Leu Ser Tyr Ile Gln Arg Leu Val Gln Ile His Val  
                     100                    105                    110  
 Asp Thr Met Lys Val Ile Asn Asp Pro Ile His Gly His Ile Glu Leu  
                     115                    120                    125  
 His Pro Leu Leu Val Arg Ile Ile Asp Thr Pro Gln Phe Gln Arg Leu  
                     130                    135                    140  
 Arg Tyr Ile Lys Gln Leu Gly Gly Gly Tyr Tyr Val Phe Pro Gly Ala  
                     145                    150                    155                    160  
 Ser His Asn Arg Phe Glu His Ser Leu Gly Val Gly Tyr Leu Ala Gly  
                     165                    170                    175  
 Cys Leu Val His Ala Leu Gly Glu Lys Gln Pro Glu Leu Gln Ile Ser  
                     180                    185                    190  
 Glu Arg Asp Val Leu Cys Val Gln Ile Ala Gly Leu Cys His Asp Leu

195	200	205
Gly His Gly Pro Phe Ser His Met Phe Asp Gly Arg Phe Ile Pro Leu 210	215	220
Ala Arg Pro Glu Val Lys Trp Thr His Glu Gln Gly Ser Val Met Met 225	230	235 240
Phe Glu His Leu Ile Asn Ser Asn Gly Ile Lys Pro Val Met Glu Gln 245	250	255
Tyr Gly Leu Ile Pro Glu Glu Asp Ile Cys Phe Ile Lys Glu Gln Ile 260	265	270
Val Gly Pro Leu Glu Ser Pro Val Glu Asp Ser Leu Trp Pro Tyr Lys 275	280	285
Gly Arg Pro Glu Asn Lys Ser Phe Leu Tyr Glu Ile Val Ser Asn Lys 290	295	300
Arg Asn Gly Ile Asp Val Asp Lys Trp Asp Tyr Phe Ala Arg Asp Cys 305	310	315 320
His His Leu Gly Ile Gln Asn Asn Phe Asp Tyr Lys Arg Phe Ile Lys 325	330	335
Phe Ala Arg Val Cys Glu Val Asp Asn Glu Leu Arg Ile Cys Ala Arg 340	345	350
Xaa Xaa Glu Val Gly Asn Leu Tyr Asp Met Xaa His Thr Arg Asn Ser 355	360	365
Leu His Arg Arg Ala Tyr Gln His Lys Val Gly Asn Ile Ile Asp Thr 370	375	380
Met Ile Thr Asp Ala Phe Leu Lys Ala Asp Asp Tyr Ile Glu Ile Thr 385	390	395 400
Gly Ala Gly Gly Lys Lys Tyr Arg Ile Ser Thr Ala Ile Asp Asp Met 405	410	415
Glu Ala Tyr Thr Lys Leu Thr Asp Asn Ile Phe Leu Glu Ile Leu Tyr 420	425	430
Ser Thr Asp Pro Lys Leu Lys Asp Ala Arg Glu Ile Leu Lys Gln Ile 435	440	445
Glu Tyr Arg Asn Leu Phe Lys Tyr Val Gly Glu Thr Gln Pro Thr Gly 450	455	460
Gln Ile Lys Ile Lys Arg Glu Asp Tyr Glu Ser Leu Pro Lys Glu Val 465	470	475 480
Ala Ser Ala Lys Pro Lys Val Leu Leu Asp Val Lys Leu Lys Ala Glu 485	490	495
Asp Phe Ile Val Asp Val Ile Asn Met Asp Tyr Gly Met Gln Glu Lys 500	505	510
Asn Pro Ile Asp His Val Ser Phe Tyr Cys Lys Thr Ala Pro Asn Arg		

515                      520                      525  
 Ala Ile Arg Ile Thr Lys Asn Gln Val Ser Gln Leu Leu Pro Glu Lys  
 530                      535                      540  
 Phe Ala Glu Gln Leu Ile Arg Val Tyr Cys Lys Lys Val Asp Arg Lys  
 545                      550                      555                      560  
 Ser Leu Tyr Ala Ala Arg Gln Tyr Phe Val Gln Trp Cys Ala Asp Arg  
 565                      570                      575  
 Asn Phe Thr Lys Pro Gln Asp Gly Asp Val Ile Ala Pro Leu Ile Thr  
 580                      585                      590  
 Pro Gln Lys Lys Glu Trp Asn Asp Ser Thr Ser Val Gln Asn Pro Thr  
 595                      600                      605  
 Arg Leu Arg Glu Ala Ser Lys Ser Arg Val Gln Leu Phe Lys Asp Asp  
 610                      615                      620  
 Pro Met  
 625

&lt;210&gt; 2201

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (128)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2201

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
 1                      5                      10                      15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
 20                      25                      30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
 35                      40                      45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
 50                      55                      60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
 65                      70                      75                      80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
 85                      90                      95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln  
 100                      105                      110

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Xaa  
 115                      120                      125



Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
 130 135 140  
 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
 145 150 155 160  
 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
 165 170 175  
 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
 180 185 190  
 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
 195 200 205  
 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
 210 215 220  
 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
 225 230 235 240  
 Ile Phe Pro Ser Ala  
 245

<210> 2202  
 <211> 32  
 <212> PRT  
 <213> Homo sapiens

<400> 2202  
 Met Gly Val Asn Lys Val Leu Phe Thr Phe Phe Phe Ser Ser Leu  
 1 5 10 15  
 Leu Asp Gly Val Gly Thr Ser His Ser Leu Ala Ser Phe Pro His Thr  
 20 25 30

<210> 2203  
 <211> 245  
 <212> PRT  
 <213> Homo sapiens

<400> 2203  
 Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
 1 5 10 15  
 Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
 20 25 30  
 Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
 35 40 45  
 Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
 50 55 60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
 65 70 75 80  
 Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
 85 90 95  
 Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln  
 100 105 110  
 Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly  
 115 120 125  
 Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
 130 135 140  
 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
 145 150 155 160  
 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
 165 170 175  
 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
 180 185 190  
 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
 195 200 205  
 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
 210 215 220  
 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
 225 230 235 240  
 Ile Phe Pro Ser Ala  
 245

&lt;210&gt; 2204

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2204

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
 1 5 10 15  
 Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
 20 25 30  
 Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
 35 40 45  
 Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
 50 55 60  
 Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
 65 70 75 80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
                             85                            90                            95  
 Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln  
                             100                            105                            110  
 Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly  
                             115                            120                            125  
 Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
                             130                            135                            140  
 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
                             145                            150                            155                            160  
 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
                             165                            170                            175  
 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
                             180                            185                            190  
 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
                             195                            200                            205  
 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
                             210                            215                            220  
 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
                             225                            230                            235                            240  
 Ile Phe Pro Ser Ala  
                             245

&lt;210&gt; 2205

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2205

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
           1                            5                            10                            15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
                             20                            25                            30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
                             35                            40                            45

Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
                             50                            55                            60

Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
                             65                            70                            75                            80

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
                             85                            90                            95

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln

100 105 110  
 Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly  
 115 120 125  
 Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
 130 135 140  
 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
 145 150 155 160  
 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
 165 170 175  
 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
 180 185 190  
 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
 195 200 205  
 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
 210 215 220  
 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
 225 230 235 240  
 Ile Phe Pro Ser Ala  
 245

&lt;210&gt; 2206

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2206

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
 1 5 10 15  
 Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
 20 25 30  
 Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Leu Lys  
 35 40 45  
 Gly Glu Gln Gly Glu Pro Gly Ala Pro Gly Ile Arg Thr Gly Ile Gln  
 50 55 60  
 Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
 65 70 75 80  
 Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
 85 90 95  
 Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln  
 100 105 110  
 Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly  
 115 120 125

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
 130 135 140  
 Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
 145 150 155 160  
 Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
 165 170 175  
 Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
 180 185 190  
 Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
 195 200 205  
 Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
 210 215 220  
 His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
 225 230 235 240  
 Ile Phe Pro Ser Ala  
 245

&lt;210&gt; 2207

&lt;211&gt; 229

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;230&gt;

&lt;231&gt; SITE

&lt;232&gt; (49)

&lt;233&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2207

Met Glu Gly Pro Arg Gly Trp Leu Val Leu Cys Val Leu Ala Ile Ser  
 1 5 10 15

Leu Ala Ser Met Val Thr Glu Asp Leu Cys Arg Ala Pro Asp Gly Lys  
 20 25 30

Lys Gly Glu Ala Gly Arg Pro Gly Arg Arg Gly Arg Pro Gly Xaa Lys  
 35 40 45

Xaa Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly Asn Pro Gly  
 50 55 60

Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala Arg Gly Ile  
 65 70 75 80

Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile Lys Asp Gln  
 85 90 95

Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro Met Gly Gly  
 100 105 110

Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu Glu Pro Tyr  
 115 120 125

Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly Tyr Tyr Tyr  
 130 135 140

Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu Ser Ile Val  
 145 150 155 160

Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe Cys Asp Thr  
 165 170 175

Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met Val Leu Gln  
 180 185 190

Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro Lys Lys Gly  
 195 200 205

His Ile Tyr Gln Gly Ser Glu Ala Asp Ser Val Phe Ser Gly Phe Leu  
 210 215 220

Ile Phe Pro Ser Ala  
 225

<210> 2208

<211> 207

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (75)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2208

Met Asp Val Gly Pro Ser Ser Leu Pro His Leu Gly Leu Lys Leu Leu  
 1 5 10 15

Leu Leu Leu Leu Leu Leu Pro Leu Arg Gly Gln Ala Asn Thr Gly Cys  
 20 25 30

Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp  
 35 40 45

Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala  
 50 55 60  
 ile Pro Gly Ile Arg Gly Pro Lys Gly Gln Xaa Gly Xaa Ala Glu Ile  
 65 70 75 80  
 Pro Val Ser Val His Gly His Ser Ala Asp Pro Pro Ala Pro Cys Thr  
 85 90 95  
 Gln Gln Pro Asp Gln Ile Gln Arg Gly Pro His Gln Pro Ala Glu Xaa  
 100 105 110  
 Tyr Asp Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr  
 115 120 125  
 Tyr Phe Val Tyr His Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu  
 130 135 140  
 Tyr Arg Ser Gly Val Lys Val Val Thr Phe Cys Gly His Thr Ser Lys  
 145 150 155 160  
 Thr Asn Gln Val Asn Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly  
 165 170 175  
 Glu Glu Val Trp Leu Ala Val Asn Asp Tyr Tyr Asp Met Val Gly Ile  
 180 185 190  
 Gln Gly Ser Asp Ser Val Phe Ser Gly Phe Leu Leu Phe Pro Asp  
 195 200 205

&lt;210&gt; 2209

&lt;211&gt; 235

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2209

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp  
 1 5 10 15  
 Leu Arg Gly Ala Arg Cys Asp Met Gln Met Thr Gln Ser Pro Ser Ser  
 20 25 30  
 Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Thr Ser  
 35 40 45  
 Gln Ser Ile Gly Lys Phe Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln  
 50 55 60  
 Ala Pro Lys Leu Leu Ile Ser Gly Ala Ser Ile Leu Gln Thr Gly Val  
 65 70 75 80  
 Pro Ser Arg Phe Ser Gly Ser Gly Ser Ala Thr Tyr Phe Thr Leu Thr  
 85 90 95  
 Ile Asn Asp Leu His Pro Glu Asp Ser Ala Thr Tyr Tyr Cys Gln Gln  
 100 105 110  
 Asp Tyr Thr Thr Pro Leu Phe Gly Gln Gly Thr Lys Val Glu Ile Lys

115	120	125
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu		
130	135	140
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe		
145	150	155 160
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln		
	165	170 175
Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser		
	180	185 190
Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu		
	195	200 205
Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser		
210	215	220
Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys		
225	230	235

&lt;210&gt; 2210

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2210

Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp Leu Ser
1 5 10 15

Gly Ala Arg Cys Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser
20 25 30

Ala Ser Leu Gly Asp Ser Val Thr Ile Thr Cys Gln Ala Ser Gln Asp
35 40 45

Ile Ala Asn Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro
50 55 60

Lys Leu Val Ile Phe Asp Gly Ser Ile Leu His Thr Gly Val Pro Ser
65 70 75 80

Arg Phe Ser Gly Gly Gly Ser Gly Thr His Phe Thr Phe Thr Ile Asn
85 90 95

Asn Leu Gln Pro Asp Asp Val Ala Thr Tyr Ser Cys Gln Gln Tyr Asn
100 105 110

Thr Phe Pro Leu Thr Phe Gly Xaa Gly Thr Lys Val Glu Ile Lys Arg
115 120 125



Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln  
 130 135 140  
 Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr  
 145 150 155 160  
 Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser  
 165 170 175  
 Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr  
 180 185 190  
 Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys  
 195 200 205  
 His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro  
 210 215 220  
 Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
 225 230

&lt;210&gt; 2211

&lt;211&gt; 206

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2211

Met Asp Val Gly Pro Ser Ser Leu Pro His Leu Gly Leu Lys Leu Leu  
 1 5 10 15  
 Leu Leu Leu Leu Leu Leu Pro Leu Arg Gly Gln Ala Asn Thr Gly Cys  
 20 25 30  
 Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp  
 35 40 45  
 Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala  
 50 55 60  
 Ile Pro Gly Ile Arg Gly Pro Lys Gly Arg Tyr Lys Gln Lys Phe Gln  
 65 70 75 80  
 Ser Val Phe Thr Val Thr Arg Gln Thr His Gln Pro Pro Ala Pro Asn  
 85 90 95  
 Ser Leu Ile Arg Phe Asn Ala Val Leu Thr Asn Pro Gln Gly Asp Tyr  
 100 105 110  
 Asp Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr Tyr  
 115 120 125  
 Phe Val Tyr His Ala Ser His Thr Ala Asn Leu Cys Val Leu Leu Tyr  
 130 135 140  
 Arg Ser Gly Val Lys Val Val Thr Phe Cys Gly His Thr Ser Lys Thr  
 145 150 155 160  
 Asn Gln Val Asn Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly Glu

	165		170		175
Glu Val Trp Leu Ala Val Asn Asp Tyr Tyr Asp Met Val Gly Ile Gln					
	180		185		190
Gly Ser Asp Ser Val Phe Ser Gly Phe Leu Leu Phe Pro Asp					
	195		200		205

<210> 2212  
 <211> 208  
 <212> PRT  
 <213> Homo sapiens

<400> 2212  
 Met Asp Val Gly Pro Ser Ser Leu Pro His Leu Gly Leu Lys Leu Leu  
 1 5 10 15  
 Leu Leu Leu Leu Leu Leu Pro Leu Arg Gly Gln Ala Asn Thr Gly Cys  
 20 25 30  
 Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp  
 35 40 45  
 Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala  
 50 55 60  
 Ile Pro Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu  
 65 70 75 80  
 Pro Gly His Pro Gly Lys Asn Gly Pro Met Gly Pro Pro Gly Met Pro  
 85 90 95  
 Gly Val Pro Gly Pro Met Gly Ile Pro Gly Glu Pro Gly Glu Glu Gly  
 100 105 110  
 Arg Tyr Lys Gln Lys Phe Gln Ser Val Phe Thr Val Thr Arg Gln Thr  
 115 120 125  
 His Gln Pro Pro Ala Pro Asn Ser Leu Ile Arg Phe Asn Ala Val Leu  
 130 135 140  
 Thr Asn Pro Gln Glu Ile Met Thr Arg Ala Leu Ala Ser Ser Pro Ala  
 145 150 155 160  
 Lys Ser Pro Ala Ser Thr Thr Leu Ser Thr Thr Arg Arg Ile Gln Pro  
 165 170 175  
 Thr Cys Ala Cys Cys Cys Thr Ala Ala Ala Ser Lys Trp Ser Pro Ser  
 180 185 190  
 Val Ala Thr Arg Pro Lys Pro Ile Arg Ser Thr Arg Ala Val Cys Cys  
 195 200 205

<210> 2213  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<230>  
 <231> SITE  
 <232> (112)  
 <233> Xaa equals any of the naturally occurring L-amino acids

<400> 2213  
 Met Cys Leu Leu Gly Gly Leu Ser Ala Pro Pro Leu Leu Leu Leu Pro  
       1                  5                  10                  15  
 Leu Leu Pro Leu Leu Leu Cys Pro Pro Thr Xaa Gln Gly Asp Cys Ser  
                   20                  25                  30  
 Phe Pro Pro Glu Leu Pro Asn Ala Ile Gln Ser Val Gly Asp Gln Gln  
           35                  40                  45  
 Ser Phe Pro Glu Lys Phe Thr Val Thr Tyr Lys Cys Lys Glu Gly Phe  
       50                  55                  60  
 Val Lys Val Pro Gly Lys Ala Asp Ser Val Val Cys Leu Asn Asn Lys  
       65                  70                  75                  80  
 Trp Ser Glu Val Ala Glu Phe Cys Asn Arg Ser Cys Asp Val Pro Thr  
                   85                  90                  95  
 Arg Leu Gln Phe Ala Ser Leu Lys Lys Ser Phe Thr Lys Gln Asn Xaa  
           100                  105                  110  
 Phe Pro Val Gly Ser Val Val Glu Tyr Glu Cys Arg Pro Gly Tyr Gln  
       115                  120                  125  
 Arg Asp His Leu Leu Ser Gly Lys Leu Thr Cys Leu Leu Asn Phe Thr  
       130                  135                  140  
 Trp Ser Lys Pro Asp Glu Phe Cys Lys Arg Lys Ser Cys Pro Asn Pro  
       145                  150                  155                  160  
 Gly Asp Leu Arg His Gly His Val Asn Ile Pro Thr Asp Ile Leu Tyr  
           165                  170                  175  
 Ala Ala Val Ile His Phe Ser Cys Asn Lys Gly Tyr Arg Leu Val Gly  
           180                  185                  190  
 Ala Ala Ser Ser Tyr Cys Ser Ile Val Asn Asp Asp Val Gly Trp Ser  
       195                  200                  205  
 Asp Pro Leu Pro Glu Cys Gln Glu Ile Phe Cys Pro Glu Pro Pro Lys  
       210                  215                  220  
 Ile Ser Asn Gly Val Ile Leu Asp Gln Gln Asn Thr Tyr Val Tyr Gln  
       225                  230                  235                  240

Gln Ala Val Lys Tyr Glu Cys Ile Lys Gly Phe Thr Leu Ile Gly Glu  
                                   245                                  250                                  255

Asn Ser Asp Leu Leu Tyr Cys  
                                   260

<210> 2214

<211> 55

<212> PRT

<213> Homo sapiens

<400> 2214

Met Cys Leu Leu Gly Gly Leu Ser Ala Pro Pro Leu Leu Leu Leu Pro  
   1                                  5                                  10                                  15

Leu Leu Pro Leu Leu Leu Cys Pro Pro Thr Gly Arg Val Thr Ala Ala  
                                   20                                  25                                  30

Phe Pro Gln Ser Tyr Leu Met Pro Tyr Lys Val Trp Val Thr Asn Arg  
                                   35                                  40                                  45

Val Phe Leu Lys Asn Ser Gln  
                                   50                                  55

<210> 2215

<211> 350

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2215

Met Ala Xaa Xaa Val Val Leu Leu Ala Leu Val Ala Gly Val Leu Gly  
   1                                  5                                  10                                  15

Asn Glu Phe Ser Ile Leu Lys Ser Pro Gly Ser Val Val Phe Arg Asn  
                                   20                                  25                                  30

Gly Asn Trp Pro Ile Pro Gly Glu Arg Ile Pro Asp Val Ala Ala Leu  
                                   35                                  40                                  45

Ser Met Gly Phe Ser Val Lys Glu Asp Leu Ser Trp Pro Gly Leu Ala  
                                   50                                  55                                  60

Val Gly Asn Leu Phe His Arg Pro Arg Ala Thr Val Met Val Met Val  
                                   65                                  70                                  75                                  80

Lys Gly Val Asn Lys Leu Ala Leu Pro Pro Gly Ser Val Ile Ser Tyr  
                     85                                    90                                    95  
 Pro Leu Glu Asn Ala Val Pro Phe Ser Leu Asp Ser Val Ala Asn Ser  
                     100                                    105                                    110  
 Ile His Ser Leu Phe Ser Glu Glu Thr Pro Val Val Leu Gln Leu Ala  
                     115                                    120                                    125  
 Pro Ser Glu Glu Arg Val Tyr Met Val Gly Lys Ala Asn Ser Val Phe  
                     130                                    135                                    140  
 Glu Asp Leu Ser Val Thr Leu Arg Gln Leu Arg Asn Arg Leu Phe Gln  
                     145                                    150                                    155                                    160  
 Glu Asn Ser Val Leu Ser Ser Leu Pro Leu Asn Ser Leu Ser Arg Asn  
                     165                                    170                                    175  
 Asn Glu Val Asp Leu Leu Phe Leu Ser Glu Leu Gln Val Leu His Asp  
                     180                                    185                                    190  
 Ile Ser Ser Leu Leu Ser Arg His Lys His Leu Ala Lys Asp His Ser  
                     195                                    200                                    205  
 Pro Asp Leu Tyr Ser Leu Glu Leu Ala Gly Leu Asp Glu Ile Gly Lys  
                     210                                    215                                    220  
 Arg Tyr Gly Glu Asp Ser Glu Gln Phe Arg Asp Ala Ser Lys Ile Leu  
                     225                                    230                                    235                                    240  
 Val Asp Ala Leu Gln Lys Phe Ala Asp Asp Met Tyr Ser Leu Tyr Gly  
                     245                                    250                                    255  
 Gly Asn Ala Val Val Glu Leu Val Thr Val Lys Ser Phe Asp Thr Ser  
                     260                                    265                                    270  
 Leu Ile Arg Lys Thr Arg Thr Ile Leu Glu Ala Lys Gln Ala Lys Asn  
                     275                                    280                                    285  
 Pro Ala Ser Pro Tyr Asn Leu Ala Tyr Lys Tyr Asn Phe Glu Tyr Ser  
                     290                                    295                                    300  
 Val Val Phe Asn Met Val Leu Trp Ile Met Ile Ala Leu Ala Leu Ala  
                     305                                    310                                    315                                    320  
 Val Ile Ile Thr Ser Tyr Asn Ile Trp Asn Met Asp Pro Gly Tyr Asp  
                     325                                    330                                    335  
 Ser Ile Ile Tyr Arg Met Thr Asn Gln Lys Ile Arg Met Asp  
                     340                                    345                                    350

&lt;210&gt; 2216

&lt;211&gt; 350

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2216

Met Ala Val Phe Val Val Leu Leu Ala Leu Val Ala Gly Val Leu Gly

1	5	10	15
Asn Glu Phe Ser Ile Leu Lys Ser Pro Gly Ser Val Val Phe Arg Asn	20	25	30
Gly Asn Trp Pro Ile Pro Gly Glu Arg Ile Pro Asp Val Ala Ala Leu	35	40	45
Ser Met Gly Phe Ser Val Lys Glu Asp Leu Ser Trp Pro Gly Leu Ala	50	55	60
Val Gly Asn Leu Phe His Arg Pro Arg Ala Thr Val Met Val Met Val	65	70	80
Lys Gly Val Asn Lys Leu Ala Leu Pro Pro Gly Ser Val Ile Ser Tyr	85	90	95
Pro Leu Glu Asn Ala Val Pro Phe Ser Leu Asp Ser Val Ala Asn Ser	100	105	110
Ile His Ser Leu Phe Ser Glu Glu Thr Pro Val Val Leu Gln Leu Ala	115	120	125
Pro Ser Glu Glu Arg Val Tyr Met Val Gly Lys Ala Asn Ser Val Phe	130	135	140
Glu Asp Leu Ser Val Thr Leu Arg Gln Leu Arg Asn Arg Leu Phe Gln	145	150	160
Glu Asn Ser Val Leu Ser Ser Leu Pro Leu Asn Ser Leu Ser Arg Asn	165	170	175
Asn Glu Val Asp Leu Leu Phe Leu Ser Glu Leu Gln Val Leu His Asp	180	185	190
Ile Ser Ser Leu Leu Ser Arg His Lys His Leu Ala Lys Asp His Ser	195	200	205
Pro Asp Leu Tyr Ser Leu Glu Leu Ala Gly Leu Asp Glu Ile Gly Lys	210	215	220
Arg Tyr Gly Glu Asp Ser Glu Gln Phe Arg Asp Ala Ser Lys Ile Leu	225	230	240
Val Asp Ala Leu Gln Lys Phe Ala Asp Asp Met Tyr Ser Leu Tyr Gly	245	250	255
Gly Asn Ala Val Val Glu Leu Val Thr Val Lys Ser Phe Asp Thr Ser	260	265	270
Leu Ile Arg Lys Thr Arg Thr Ile Leu Glu Ala Lys Gln Ala Lys Asn	275	280	285
Pro Ala Ser Pro Tyr Asn Leu Ala Tyr Lys Tyr Asn Phe Glu Tyr Ser	290	295	300
Val Val Phe Asn Met Val Leu Trp Ile Met Ile Ala Leu Ala Leu Ala	305	310	320
Val Ile Ile Thr Ser Tyr Asn Ile Trp Asn Met Asp Pro Gly Tyr Asp			

325

330

335

Ser Ile Ile Tyr Arg Met Thr Asn Gln Lys Ile Arg Met Asp  
 340 345 350

&lt;210&gt; 2217

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Hcmo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (79)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2217

Met Cys Ser Leu Phe His Ala Phe Ile Phe Ala Gln Leu Trp Thr Val  
 1 5 10 15

Tyr Cys Glu Gln Ser Ala Val Ala Thr Asn Leu Gln Asn Gln Asn Glu  
 20 25 30

Phe Ser Phe Thr Ala Ile Leu Thr Ala Leu Glu Phe Trp Ser Arg Val  
 35 40 45

Thr Pro Ser Ile Leu Gln Leu Met Ala His Asn Lys Xaa Met Val Glu  
 50 55 60

Met Val Cys Leu His Val Ile Ser Leu Met Glu Ala Leu Gln Xaa Cys  
 65 70 75 80

Asn Ser Thr Ile Phe Val Lys Leu Ile Pro Met Trp Leu Pro Met Ile  
 85 90 95

Gln Ser Asn Ile Lys His Leu Ser Ala Gly Leu Gln Leu Arg Leu Gln  
 100 105 110

Ala Ile Gln Asn His Val Asn His His Ser Leu Arg Thr Leu Pro Gly  
 115 120 125

Ser Gly Gln Ser Ser Ala Gly Leu Ala Ala Leu Arg Lys Trp Leu Gln  
 130 135 140

Cys Thr Gln Phe Lys Met Ala Gln Val Glu Ile Gln Ser Ser Glu Ala  
 145 150 155 160

Ala Ser Gln Phe Tyr Pro Leu  
 165

&lt;210&gt; 2218

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2218

Met Glu Phe Pro Gly Ala Asp Gly Cys Asn Gln Val Asp Ala Glu Tyr  
 1 5 10 15

Leu Lys Val Gly Ser Glu Gly His Phe Arg Val Pro Ala Leu Gly Tyr  
 20 25 30

Leu Asp Val Arg Ile Val Asp Thr Asp Tyr Ser Ser Phe Ala Val Leu  
 35 40 45

Tyr Ile Tyr Lys Glu Leu Glu Gly Ala Leu Ser Thr Met Val Gln Leu  
 50 55 60

Tyr Ser Arg Thr Gln Asp Val Ser Pro Gln Ala Leu Lys Ala Phe Gln  
 65 70 75 80

Asp Phe Tyr Pro Thr Leu Gly Leu Pro Glu Asp Met Met Val Met Leu  
 85 90 95

Pro Gln Ser Asp Ala Cys Asn Pro Glu Ser Lys Glu Ala Pro  
 100 105 110

&lt;210&gt; 2219

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (106)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 2219

Ile Ser Leu Leu Trp Asn Leu Trp Gln Ser Val Lys Ile Gly Cys Gly  
 1 5 10 15

Glu Lys Leu Tyr Pro Gly His Thr Lys Asp Ser Arg Asn His Leu Gly  
 20 25 30

Gln Asn Leu Ser Phe Leu His Phe Ile Tyr Leu Phe Pro Pro Pro His  
 35 40 45

Ser Thr His Thr Leu Pro Thr Ser Ser Thr Ser Thr Phe Lys His Lys  
 50 55 60

Asp Val Arg Val Phe Ser Leu Ser Val Ser Trp Arg Thr Gly Cys Trp  
 65 70 75 80

Glu Arg Lys Gly Gln Met Ser Lys Gly Gly Cys Arg Ala Gly Gln Ala  
 85 90 95



Asp Ser Gly Gly Xaa Leu Glu Glu Leu Xaa Pro Ser Gln Thr Trp Val  
 100 105 110

Ser Lys Thr  
 115

<210> 2220

<211> 262

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (254)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2220

Met Glu Cys Cys Arg Arg Ala Thr Pro Gly Thr Leu Leu Leu Phe Leu  
 1 5 10 15

Ala Phe Leu Leu Leu Ser Ser Arg Thr Ala Arg Ser Glu Glu Asp Arg  
 20 25 30

Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys Ser Arg Thr  
 35 40 45

Cys Gly Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys Leu Ser Ser Lys  
 50 55 60

Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr Cys Ser Asn Val Asp  
 65 70 75 80

Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala Gln Gln Cys Ser Ala His  
 85 90 95

Asn Asp Val Lys His His Gly Gln Phe Tyr Glu Trp Leu Pro Val Ser  
 100 105 110

Asn Asp Pro Asp Asn Pro Cys Ser Leu Lys Cys Gln Ala Lys Gly Thr  
 115 120 125

Thr Leu Val Val Glu Leu Ala Pro Lys Val Leu Asp Gly Thr Arg Cys  
 130 135 140

Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu Cys Gln Ile Val  
 145 150 155 160

Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly  
 165 170 175

Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Tyr  
 180 185 190

Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Ile  
 195 200 205

Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His

210                      215                      220  
 Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser  
 225                      230                      235                      240  
 Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Xaa Thr Ser  
                     245                      250                      255  
 Arg Asn Phe Gln Thr Lys  
                     260  
  
 <210> 2221  
 <211> 514  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 2221  
 Glu Leu Cys Arg Gln Pro Lys Pro Ser Thr Val Gln Ala Cys Asn Arg  
   1                      5                      10                      15  
 Phe Asn Cys Pro Pro Ala Trp Tyr Pro Ala Gln Trp Gln Pro Cys Ser  
                     20                      25                      30  
 Arg Thr Cys Gly Gly Gly Val Gln Lys Arg Glu Val Leu Cys Lys Gln  
                     35                      40                      45  
 Arg Met Ala Asp Gly Ser Phe Leu Glu Leu Pro Glu Thr Phe Cys Ser  
   50                      55                      60  
 Ala Ser Lys Pro Ala Cys Gln Gln Ala Cys Lys Lys Asp Asp Cys Pro  
   65                      70                      75                      80  
 Ser Glu Trp Leu Leu Ser Asp Trp Thr Glu Cys Ser Thr Ser Cys Gly  
                     85                      90                      95  
 Glu Gly Thr Gln Thr Arg Ser Ala Ile Cys Arg Lys Met Leu Lys Thr  
                     100                      105                      110  
 Gly Leu Ser Thr Val Val Asn Ser Thr Leu Cys Pro Pro Leu Pro Phe  
                     115                      120                      125  
 Ser Ser Ser Ile Arg Pro Cys Met Leu Ala Thr Cys Ala Arg Pro Gly  
   130                      135                      140  
 Arg Pro Ser Thr Lys His Ser Pro His Ile Ala Ala Ala Arg Lys Val  
   145                      150                      155                      160  
 Tyr Ile Gln Thr Arg Arg Gln Arg Lys Leu His Phe Val Val Gly Gly  
                     165                      170                      175  
 Phe Ala Tyr Leu Leu Pro Lys Thr Ala Val Val Leu Arg Cys Pro Ala  
                     180                      185                      190  
 Arg Arg Val Arg Lys Pro Leu Ile Thr Trp Glu Lys Asp Gly Gln His  
   195                      200                      205  
 Leu Ile Ser Ser Thr His Val Thr Val Ala Pro Phe Gly Tyr Leu Lys  
   210                      215                      220

Ile His Arg Leu Lys Pro Ser Asp Ala Gly Val Tyr Thr Cys Ser Ala  
 225 230 235 240  
 Gly Pro Ala Arg Glu His Phe Val Ile Lys Leu Ile Gly Gly Asn Arg  
 245 250 255  
 Lys Leu Val Ala Arg Pro Leu Ser Pro Arg Ser Glu Glu Glu Val Leu  
 260 265 270  
 Ala Gly Arg Lys Gly Gly Pro Lys Glu Ala Leu Gln Thr His Lys His  
 275 280 285  
 Gln Asn Gly Ile Phe Ser Asn Gly Ser Lys Ala Glu Lys Arg Gly Leu  
 290 295 300  
 Ala Ala Asn Pro Gly Ser Arg Tyr Asp Asp Leu Val Ser Arg Leu Leu  
 305 310 315 320  
 Glu Gln Gly Gly Trp Pro Gly Glu Leu Leu Ala Ser Trp Glu Ala Gln  
 325 330 335  
 Asp Ser Ala Glu Arg Asn Thr Thr Ser Glu Glu Asp Pro Gly Ala Glu  
 340 345 350  
 Gln Val Leu Leu His Leu Pro Phe Thr Met Val Thr Glu Gln Arg Arg  
 355 360 365  
 Leu Asp Asp Ile Leu Gly Asn Leu Ser Gln Gln Pro Glu Glu Leu Arg  
 370 375 380  
 Asp Leu Tyr Ser Lys His Leu Val Ala Gln Leu Ala Gln Glu Ile Phe  
 385 390 395 400  
 Arg Ser His Leu Glu His Gln Asp Thr Leu Leu Lys Pro Ser Glu Arg  
 405 410 415  
 Arg Thr Ser Pro Val Thr Leu Ser Pro His Lys His Val Ser Gly Phe  
 420 425 430  
 Ser Ser Ser Leu Arg Thr Ser Ser Thr Gly Asp Ala Gly Gly Gly Ser  
 435 440 445  
 Arg Arg Pro His Arg Lys Pro Thr Ile Leu Arg Lys Ile Ser Ala Ala  
 450 455 460  
 Gln Gln Leu Ser Ala Ser Glu Val Val Thr His Leu Gly Gln Thr Val  
 465 470 475 480  
 Ala Leu Ala Ser Gly Thr Leu Ser Val Phe Cys Thr Val Arg Pro Ser  
 485 490 495  
 Ala Thr Gln Gly Leu Pro Ser Ala Gly Pro Gly Met Glu Lys Lys Ser  
 500 505 510  
 Val Gln

&lt;210&gt; 2222

&lt;211&gt; 1745

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2222

Met Glu Cys Cys Arg Arg Ala Thr Pro Gly Thr Leu Leu Leu Phe Leu  
 1 5 10 15

Ala Phe Leu Leu Leu Ser Ser Arg Thr Ala Arg Ser Glu Glu Asp Arg  
 20 25 30

Asp Gly Leu Trp Asp Ala Trp Gly Pro Trp Ser Glu Cys Ser Arg Thr  
 35 40 45

Cys Gly Gly Gly Ala Ser Tyr Ser Leu Arg Arg Cys Leu Ser Ser Lys  
 50 55 60

Ser Cys Glu Gly Arg Asn Ile Arg Tyr Arg Thr Cys Ser Asn Val Asp  
 65 70 75 80

Cys Pro Pro Glu Ala Gly Asp Phe Arg Ala Gln Gln Cys Ser Ala His  
 85 90 95

Asn Asp Val Lys His His Gly Gln Phe Tyr Glu Trp Leu Pro Val Ser  
 100 105 110

Asn Asp Pro Asp Asn Pro Cys Ser Leu Lys Cys Gln Ala Lys Gly Thr  
 115 120 125

Thr Leu Val Val Glu Leu Ala Pro Lys Val Leu Asp Gly Thr Arg Cys  
 130 135 140

Tyr Thr Glu Ser Leu Asp Met Cys Ile Ser Gly Leu Cys Gln Ile Val  
 145 150 155 160

Gly Cys Asp His Gln Leu Gly Ser Thr Val Lys Glu Asp Asn Cys Gly  
 165 170 175

Val Cys Asn Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Tyr  
 180 185 190

Lys Ser Gln Leu Ser Ala Thr Lys Ser Asp Asp Thr Val Val Ala Ile  
 195 200 205

Pro Tyr Gly Ser Arg His Ile Arg Leu Val Leu Lys Gly Pro Asp His  
 210 215 220

Leu Tyr Leu Glu Thr Lys Thr Leu Gln Gly Thr Lys Gly Glu Asn Ser  
 225 230 235 240

Leu Ser Ser Thr Gly Thr Phe Leu Val Asp Asn Ser Ser Val Asp Phe  
 245 250 255

Gln Lys Phe Pro Asp Lys Glu Ile Leu Arg Met Ala Gly Pro Leu Thr  
 260 265 270

Ala Asp Phe Ile Val Lys Ile Arg Asn Ser Gly Ser Ala Asp Ser Thr  
 275 280 285

Val Gln Phe Ile Phe Tyr Gln Pro Ile Ile His Arg Trp Arg Glu Thr  
 290 295 300  
 Asp Phe Phe Pro Cys Ser Ala Thr Cys Gly Gly Gly Tyr Gln Leu Thr  
 305 310 315 320  
 Ser Ala Glu Cys Tyr Asp Leu Arg Ser Asn Arg Val Val Ala Asp Gln  
 325 330 335  
 Tyr Cys His Tyr Tyr Pro Glu Asn Ile Lys Pro Lys Pro Lys Leu Gln  
 340 345 350  
 Glu Cys Asn Leu Asp Pro Cys Pro Ala Arg Trp Glu Ala Thr Pro Trp  
 355 360 365  
 Thr Ala Cys Ser Ser Ser Cys Gly Gly Gly Ile Gln Ser Arg Ala Val  
 370 375 380  
 Ser Cys Val Glu Glu Asp Ile Gln Gly His Val Thr Ser Val Glu Glu  
 385 390 395 400  
 Trp Lys Cys Met Tyr Thr Pro Lys Met Pro Ile Ala Gln Pro Cys Asn  
 405 410 415  
 Ile Phe Asp Cys Pro Lys Trp Leu Ala Gln Glu Trp Ser Pro Cys Thr  
 420 425 430  
 Val Thr Cys Gly Gln Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asp  
 435 440 445  
 His Arg Gly Met His Thr Gly Gly Cys Ser Pro Lys Thr Lys Pro His  
 450 455 460  
 Ile Lys Glu Glu Cys Ile Val Pro Thr Pro Cys Tyr Lys Pro Lys Glu  
 465 470 475 480  
 Lys Leu Pro Val Glu Ala Lys Leu Pro Trp Phe Lys Gln Ala Gln Glu  
 485 490 495  
 Leu Glu Glu Gly Ala Ala Val Ser Glu Glu Pro Ser Phe Ile Pro Lys  
 500 505 510  
 Ala Trp Ser Ala Cys Thr Val Thr Cys Gly Val Gly Thr Gln Val Arg  
 515 520 525  
 Ile Val Arg Cys Gln Val Leu Leu Ser Phe Ser Gln Ser Val Ala Asp  
 530 535 540  
 Leu Pro Ile Asp Glu Cys Glu Gly Pro Lys Pro Ala Ser Gln Arg Ala  
 545 550 555 560  
 Cys Tyr Ala Gly Pro Cys Ser Gly Glu Ile Pro Glu Phe Asn Pro Asp  
 565 570 575  
 Glu Thr Asp Gly Leu Phe Gly Gly Leu Gln Asp Phe Asp Glu Leu Tyr  
 580 585 590  
 Asp Trp Glu Tyr Glu Gly Phe Thr Lys Cys Ser Glu Ser Cys Gly Gly  
 595 600 605

Gly Val Gln Glu Ala Val Val Ser Cys Leu Asn Lys Gln Thr Arg Glu  
 610 615 620  
 Pro Ala Glu Glu Asn Leu Cys Val Thr Ser Arg Arg Pro Pro Gln Leu  
 625 630 635 640  
 Leu Lys Ser Cys Asn Leu Asp Pro Cys Pro Ala Arg Trp Glu Ile Gly  
 645 650 655  
 Lys Trp Ser Pro Cys Ser Leu Thr Cys Gly Val Gly Leu Gln Thr Arg  
 660 665 670  
 Asp Val Phe Cys Ser His Leu Leu Ser Arg Glu Met Asn Glu Thr Val  
 675 680 685  
 Ile Leu Ala Asp Glu Leu Cys Arg Gln Pro Lys Pro Ser Thr Val Gln  
 690 695 700  
 Ala Cys Asn Arg Phe Asn Cys Pro Pro Ala Trp Tyr Pro Ala Gln Trp  
 705 710 715 720  
 Gln Pro Cys Ser Arg Thr Cys Gly Gly Gly Val Gln Lys Arg Glu Val  
 725 730 735  
 Leu Cys Lys Gln Arg Met Ala Asp Gly Ser Phe Leu Glu Leu Pro Glu  
 740 745 750  
 Thr Phe Cys Ser Ala Ser Lys Pro Ala Cys Gln Gln Ala Cys Lys Lys  
 755 760 765  
 Asp Asp Cys Pro Ser Glu Trp Leu Leu Ser Asp Trp Thr Glu Cys Ser  
 770 775 780  
 Thr Ser Cys Gly Glu Gly Thr Gln Thr Arg Ser Ala Ile Cys Arg Lys  
 785 790 795 800  
 Met Leu Lys Thr Gly Leu Ser Thr Val Val Asn Ser Thr Leu Cys Pro  
 805 810 815  
 Pro Leu Pro Phe Ser Ser Ser Ile Arg Pro Cys Met Leu Ala Thr Cys  
 820 825 830  
 Ala Arg Pro Gly Arg Pro Ser Thr Lys His Ser Pro His Ile Ala Ala  
 835 840 845  
 Ala Arg Lys Val Tyr Ile Gln Thr Arg Arg Gln Arg Lys Leu His Phe  
 850 855 860  
 Val Val Gly Gly Phe Ala Tyr Leu Leu Pro Lys Thr Ala Val Val Leu  
 865 870 875 880  
 Arg Cys Pro Ala Arg Arg Val Arg Lys Pro Leu Ile Thr Trp Glu Lys  
 885 890 895  
 Asp Gly Gln His Leu Ile Ser Ser Thr His Val Thr Val Ala Pro Phe  
 900 905 910  
 Gly Tyr Leu Lys Ile His Arg Leu Lys Pro Ser Asp Ala Gly Val Tyr  
 915 920 925

Thr Cys Ser Ala Gly Pro Ala Arg Glu His Phe Val Ile Lys Leu Ile  
930 935 940

Gly Gly Asn Arg Lys Leu Val Ala Arg Pro Leu Ser Pro Arg Ser Glu  
945 950 955 960

Glu Glu Val Leu Ala Gly Arg Lys Gly Gly Pro Lys Glu Ala Leu Gln  
965 970 975

Thr His Lys His Gln Asn Gly Ile Phe Ser Asn Gly Ser Lys Ala Glu  
980 985 990

Lys Arg Gly Leu Ala Ala Asn Pro Gly Ser Arg Tyr Asp Asp Leu Val  
995 1000 1005

Ser Arg Leu Leu Glu Gln Gly Gly Trp Pro Gly Glu Leu Leu Ala Ser  
1010 1015 1020

Trp Glu Ala Gln Asp Ser Ala Glu Arg Asn Thr Thr Ser Glu Glu Asp  
1025 1030 1035 1040

Pro Gly Ala Glu Gln Val Leu Leu His Leu Pro Phe Thr Met Val Thr  
1045 1050 1055

Glu Gln Arg Arg Leu Asp Asp Ile Leu Gly Asn Leu Ser Gln Gln Pro  
1060 1065 1070

Glu Glu Leu Arg Asp Leu Tyr Ser Lys His Leu Val Ala Gln Leu Ala  
1075 1080 1085

Gln Glu Ile Phe Arg Ser His Leu Glu His Gln Asp Thr Leu Leu Lys  
1090 1095 1100

Pro Ser Glu Arg Arg Thr Ser Pro Val Thr Leu Ser Pro His Lys His  
1105 1110 1115 1120

Val Ser Gly Phe Ser Ser Ser Leu Arg Thr Ser Ser Thr Gly Asp Ala  
1125 1130 1135

Gly Gly Gly Ser Arg Arg Pro His Arg Lys Pro Thr Ile Leu Arg Lys  
1140 1145 1150

Ile Ser Ala Ala Gln Gln Leu Ser Ala Ser Glu Val Val Thr His Leu  
1155 1160 1165

Gly Gln Thr Val Ala Leu Ala Ser Gly Thr Leu Ser Val Leu Leu His  
1170 1175 1180

Cys Glu Ala Ile Gly His Pro Arg Pro Thr Ile Ser Trp Ala Arg Asn  
1185 1190 1195 1200

Gly Glu Glu Val Gln Phe Ser Asp Arg Ile Leu Leu Gln Pro Asp Asp  
1205 1210 1215

Ser Leu Gln Ile Leu Ala Pro Val Glu Ala Asp Val Gly Phe Tyr Thr  
1220 1225 1230

Cys Asn Ala Thr Asn Ala Leu Gly Tyr Asp Ser Val Ser Ile Ala Val  
1235 1240 1245

Thr Leu Ala Gly Lys Pro Leu Val Lys Thr Ser Arg Met Thr Val Ile  
 1250 1255 1260  
 Asn Thr Glu Lys Pro Ala Val Thr Val Asp Ile Gly Ser Thr Ile Lys  
 1265 1270 1275 1280  
 Thr Val Gln Gly Val Asn Val Thr Ile Asn Cys Gln Val Ala Gly Val  
 1285 1290 1295  
 Pro Glu Ala Glu Val Thr Trp Phe Arg Asn Lys Ser Lys Leu Gly Ser  
 1300 1305 1310  
 Pro His His Leu His Glu Gly Ser Leu Leu Leu Thr Asn Val Ser Ser  
 1315 1320 1325  
 Ser Asp Gln Gly Leu Tyr Ser Cys Arg Ala Ala Asn Leu His Gly Glu  
 1330 1335 1340  
 Leu Thr Glu Ser Thr Gln Leu Leu Ile Leu Asp Pro Pro Gln Val Pro  
 1345 1350 1355 1360  
 Thr Gln Leu Glu Asp Ile Arg Ala Leu Leu Ala Ala Thr Gly Pro Asn  
 1365 1370 1375  
 Leu Pro Ser Val Leu Thr Ser Pro Leu Gly Thr Gln Leu Val Leu Asp  
 1380 1385 1390  
 Pro Gly Asn Ser Ala Leu Leu Gly Cys Pro Ile Lys Gly His Pro Val  
 1395 1400 1405  
 Pro Asn Ile Thr Trp Phe His Gly Gly Gln Pro Ile Val Thr Ala Thr  
 1410 1415 1420  
 Gly Leu Thr His His Ile Leu Ala Ala Gly Gln Ile Leu Gln Val Ala  
 1425 1430 1435 1440  
 Asn Leu Ser Gly Gly Ser Gln Gly Glu Phe Ser Cys Leu Ala Gln Asn  
 1445 1450 1455  
 Glu Ala Gly Val Leu Met Gln Lys Ala Ser Leu Val Ile Gln Asp Tyr  
 1460 1465 1470  
 Trp Trp Ser Val Asp Arg Leu Ala Thr Cys Ser Ala Ser Cys Gly Asn  
 1475 1480 1485  
 Arg Gly Val Gln Gln Pro Arg Leu Arg Cys Leu Leu Asn Ser Thr Glu  
 1490 1495 1500  
 Val Asn Pro Ala His Cys Ala Gly Lys Val Arg Pro Ala Val Gln Pro  
 1505 1510 1515 1520  
 Ile Ala Cys Asn Arg Arg Asp Cys Pro Ser Arg Trp Met Val Thr Ser  
 1525 1530 1535  
 Trp Ser Ala Cys Thr Arg Ser Cys Gly Gly Gly Val Gln Thr Arg Arg  
 1540 1545 1550  
 Val Thr Cys Gln Lys Leu Lys Ala Ser Gly Ile Ser Thr Pro Val Ser  
 1555 1560 1565



Asn Asp Met Cys Thr Gln Val Ala Lys Arg Pro Val Asp Thr Gln Ala  
 1570 1575 1580  
 Cys Asn Gln Gln Leu Cys Val Glu Trp Ala Phe Ser Ser Trp Gly Gln  
 1585 1590 1595 1600  
 Cys Asn Gly Pro Cys Ile Gly Pro His Leu Ala Val Gln His Arg Gln  
 1605 1610 1615  
 Val Phe Cys Gln Thr Arg Asp Gly Ile Thr Leu Pro Ser Glu Gln Cys  
 1620 1625 1630  
 Ser Ala Leu Pro Arg Pro Val Ser Thr Gln Asn Cys Trp Ser Glu Ala  
 1635 1640 1645  
 Cys Ser Val His Trp Arg Val Ser Leu Trp Thr Leu Cys Thr Ala Thr  
 1650 1655 1660  
 Cys Gly Asn Tyr Gly Phe Gln Ser Arg Arg Val Glu Cys Val His Ala  
 1665 1670 1675 1680  
 Arg Thr Asn Lys Ala Val Pro Glu His Leu Cys Ser Trp Gly Pro Arg  
 1685 1690 1695  
 Pro Ala Asn Trp Gln Arg Cys Asn Ile Thr Pro Cys Glu Asn Met Glu  
 1700 1705 1710  
 Cys Arg Asp Thr Thr Arg Tyr Cys Glu Lys Val Lys Gln Leu Lys Leu  
 1715 1720 1725  
 Cys Gln Leu Ser Gln Phe Lys Ser Arg Cys Cys Gly Thr Cys Gly Lys  
 1730 1735 1740  
 Ala  
 1745

<210> 2223  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<400> 2223  
 Glu Cys Cys Glu Thr Ala Ala Pro Pro Gly Pro His Arg Arg Pro Glu  
 1 5 10 15  
 Ser Gly Gln

<210> 2224  
 <211> 363  
 <212> PRT  
 <213> Homo sapiens

<400> 2224  
 Met Ala Ala Val Leu Thr Trp Ala Leu Ala Leu Leu Ser Ala Phe Ser  
 1 5 10 15

Ala Thr Gln Ala Arg Lys Gly Phe Trp Asp Tyr Phe Ser Gln Thr Ser  
                   20                                  25                                  30

Gly Asp Lys Gly Arg Val Glu Gln Ile His Gln Gln Lys Met Ala Arg  
                   35                                  40                                  45

Glu Pro Ala Thr Leu Lys Asp Ser Leu Glu Gln Asp Leu Asn Asn Met  
                   50                                  55                                  60

Asn Lys Phe Leu Glu Lys Leu Arg Pro Leu Ser Gly Ser Glu Ala Pro  
                   65                                  70                                  75                                  80

Arg Leu Pro Gln Asp Pro Val Gly Met Arg Arg Gln Leu Gln Glu Glu  
                                   85                                  90                                  95

Leu Glu Glu Val Lys Ala Arg Leu Gln Pro Tyr Met Ala Glu Ala His  
                                   100                                  105                                  110

Glu Leu Val Gly Trp Asn Leu Glu Gly Leu Arg Gln Gln Leu Lys Pro  
                                   115                                  120                                  125

Tyr Thr Met Asp Leu Met Glu Gln Val Ala Leu Arg Val Gln Glu Leu  
                   130                                  135                                  140

Gln Glu Gln Leu Arg Val Val Gly Glu Asp Thr Lys Ala Gln Leu Leu  
                   145                                  150                                  155                                  160

Gly Gly Val Asp Glu Ala Trp Ala Leu Leu Gln Gly Leu Gln Ser Arg  
                                   165                                  170                                  175

Val Val His His Thr Gly Arg Phe Lys Glu Leu Phe His Pro Tyr Ala  
                                   180                                  185                                  190

Glu Ser Leu Val Ser Gly Ile Gly Arg His Val Gln Glu Leu His Arg  
                   195                                  200                                  205

Ser Val Ala Pro His Ala Pro Ala Ser Pro Ala Arg Leu Ser Arg Cys  
                   210                                  215                                  220

Val Gln Val Leu Ser Arg Lys Leu Thr Leu Lys Ala Lys Ala Leu His  
                   225                                  230                                  235                                  240

Ala Arg Ile Gln Gln Asn Leu Asp Gln Leu Arg Glu Glu Leu Ile Arg  
                                   245                                  250                                  255

Ala Phe Ala Gly Thr Gly Thr Glu Glu Gly Ala Gly Pro Asp Pro Gln  
                                   260                                  265                                  270

Met Leu Ser Glu Glu Val Arg Gln Arg Leu Gln Ala Phe Arg Gln Asp  
                   275                                  280                                  285

Thr Tyr Leu Gln Ile Ala Ala Phe Thr Arg Ala Ile Asp Gln Glu Thr  
                   290                                  295                                  300

Glu Glu Val Gln Gln Gln Leu Ala Pro Pro Pro Pro Gly His Ser Ala  
                   305                                  310                                  315                                  320

Phe Ala Pro Glu Phe Gln Gln Thr Asp Ser Gly Lys Val Leu Ser Lys  
                                   325                                  330                                  335

Leu Gln Ala Arg Leu Asp Asp Leu Trp Glu Asp Ile Thr His Ser Leu  
                   340                                  345                                  350

His Asp Gln Gly His Ser His Leu Gly Asp Pro  
                   355                                  360

<210> 2225

<211> 183

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (146)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 2225

Met Ala Val Gly Lys Phe Leu Leu Gly Ser Leu Leu Leu Leu Ser Leu  
       1                                  5                                  10                                  15

Gln Leu Gly Gln Gly Trp Gly Pro Asp Ala Arg Gly Val Pro Val Ala  
                   20                                  25                                  30

Asp Gly Glu Phe Ser Ser Glu Gln Val Ala Lys Ala Gly Gly Thr Trp  
                   35                                  40                                  45

Leu Gly Lys Asp Phe Gln Gly Pro Ser Val Thr Ser Gln Leu Ser Pro  
                   50                                  55                                  60

Ala Leu Thr Leu Leu Thr Val Ser Ala Leu Pro Ser His Arg His Pro  
                   65                                  70                                  75                                  80

Pro Pro Pro Cys Pro Xaa Ala Pro Ser Pro Val Trp Ser Met Pro Ala  
                                   85                                  90                                  95

Val Glu Pro Asp Pro Val Arg Gly Arg Ala Arg Pro Gly Leu Arg Leu  
                   100                                  105                                  110

Ile Gly Glu Val Ile Phe Arg Tyr Cys Ala Gly Ser Cys Pro Arg Gly  
                   115                                  120                                  125

Ala Arg Thr Gln His Gly Leu Ala Leu Ala Arg Leu Gln Gly Gln Gly  
                   130                                  135                                  140

Arg Xaa His Gly Gly Pro Cys Cys Arg Pro Thr Arg Tyr Thr Asp Val  
                   145                                  150                                  155                                  160

Ala Phe Leu Asp Asp Arg His Ala Gly Ser Gly Cys Pro Ser Ser Arg  
                   165                                  170                                  175

Arg Leu Cys Gly Cys Gly Gly  
                   180

<210> 2226  
 <211> 252  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (86)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (135)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (146)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 2226  
 Met Ala Val Gly Lys Phe Leu Leu Gly Ser Leu Leu Leu Leu Ser Leu  
     1                    5                    10                    15  
 Gln Leu Gly Gln Gly Trp Gly Pro Asp Ala Arg Gly Val Pro Val Ala  
                     20                    25                    30  
 Asp Gly Glu Phe Ser Ser Glu Gln Val Ala Lys Ala Gly Gly Thr Trp  
             35                    40                    45  
 Leu Gly Lys Asp Phe Gln Gly Pro Ser Val Thr Ser Gln Leu Ser Pro  
             50                    55                    60  
 Ala Leu Thr Leu Leu Thr Val Ser Ala Leu Pro Ser His Arg His Pro  
             65                    70                    75                    80  
 Pro Pro Pro Cys Pro Xaa Ala Pro Ser Pro Val Trp Ser Met Pro Ala  
                     85                    90                    95  
 Val Glu Pro Asp Pro Val Arg Gly Arg Ala Arg Pro Gly Leu Arg Leu  
                     100                    105                    110  
 Ile Gly Glu Xaa His Leu Pro Leu Leu Arg Arg Gln Leu Pro Pro Trp  
             115                    120                    125  
 Cys Pro His Pro Ala Trp Xaa Gly Ala Gly Pro Ala Ala Gly Pro Gly  
             130                    135                    140  
 Pro Xaa Pro Arg Arg Ala Leu Leu Pro Ala His Ser Leu His Arg Arg  
             145                    150                    155                    160  
 Gly Leu Pro Arg Arg Pro Pro Arg Trp Gln Arg Leu Pro Gln Leu Ser

165                      170                      175  
 Ala Ala Leu Arg Leu Trp Trp Leu Arg Val Pro Gly Leu Ala Pro Arg  
                          180                      185                      190  
 Ser Cys Ser Ala Gly Gly Ala Arg Leu Thr Tyr Leu Leu Glu Thr Trp  
                          195                      200                      205  
 Met Gln Arg Gln Arg Gly Gly Glu Trp Ala Gly Ala Thr Ser Ser Glu  
                          210                      215                      220  
 Cys Asn Lys Gly His His Ser Pro Gly Lys Lys Lys Lys Lys Lys Lys  
                          225                      230                      235                      240  
 Lys Lys Lys Lys Lys Leu Glu Gly Gly Ser Arg Tyr  
                          245                      250

<210> 2227  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 2227  
 Met Val Met Ile Leu Phe Val Ala Phe Ile Thr Cys Trp Glu Glu Val  
                          1                      5                      10                      15  
 Thr Thr Leu Val Gln Ala Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr  
                          20                      25                      30  
 Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg Ser  
                          35                      40                      45  
 Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr Trp  
                          50                      55                      60  
 Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val Gln  
                          65                      70                      75                      80  
 Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val Asn  
                          85                      90                      95  
 Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu Asn  
                          100                      105                      110  
 Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys Cys  
                          115                      120                      125  
 Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro  
                          130                      135                      140  
 Ile Ser Ile Met Ile Cys  
                          145                      150

<210> 2228  
 <211> 125  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2228

Met Ile Pro Phe Pro Ala Cys Leu Leu Leu Ala Leu Phe Pro Lys Val  
 1 5 10 15

Gln Val Gly Arg Thr Thr Ser Ala Tyr Phe Ser Thr Ile Pro Ser Met  
 20 25 30

Pro Ala Arg Ser Gln Ile Asn Leu Pro Val Glu Ser Gly Ser Ala Leu  
 35 40 45

Leu Glu Pro Arg Gly Lys Gly Arg Val Glu Arg Val Cys Pro Val Ala  
 50 55 60

Trp Ser Ser Met Val Ala Ser Cys Leu Pro Ser Pro Ser Ser Gly Gly  
 65 70 75 80

Pro Glu Gly Ser Leu Gly Thr Val Pro Gln Ile Leu Thr Gln Gly Pro  
 85 90 95

Ala Trp Gly Arg Asp Gly Cys Arg Gln Asn Ala Leu Tyr Arg Asp Phe  
 100 105 110

Leu Leu Leu Gly Arg Cys Val Ser Pro Thr Ile Cys Leu  
 115 120 125

&lt;210&gt; 2229

&lt;211&gt; 766

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2229

Met Ile Trp Arg Ser Arg Ala Gly Ala Glu Leu Phe Ser Leu Met Ala  
 1 5 10 15

Leu Trp Glu Trp Ile Ala Leu Ser Leu His Cys Trp Val Leu Ala Val  
 20 25 30

Ala Ala Val Ser Asp Gln His Ala Thr Ser Pro Phe Asp Trp Leu Leu  
 35 40 45

Ser Asp Lys Gly Pro Phe His Arg Ser Gln Glu Tyr Thr Asp Phe Val  
 50 55 60

Asp Arg Ser Arg Gln Gly Phe Ser Thr Arg Tyr Lys Ile Tyr Arg Glu  
 65 70 75 80

Phe Gly Arg Trp Lys Val Asn Asn Leu Ala Val Glu Arg Arg Asn Phe  
 85 90 95

Leu Gly Ser Pro Leu Pro Leu Ala Pro Glu Phe Phe Arg Asn Ile Arg  
 100 105 110

Leu Leu Gly Arg Arg Pro Thr Leu Gln Gln Ile Thr Glu Asn Leu Ile  
 115 120 125

Lys Lys Tyr Gly Thr His Phe Leu Leu Ser Ala Thr Leu Gly Gly Glu

130	135	140
Glu Ser Leu Thr Ile Phe Val Asp Lys Arg Lys Leu Ser Lys Arg Ala		
145	150	155 160
Glu Gly Ser Asp Ser Thr Thr Asn Ser Ser Ser Val Thr Leu Glu Thr		
	165	170 175
Leu His Gln Leu Ala Ala Ser Tyr Phe Ile Asp Arg Asp Ser Thr Leu		
	180	185 190
Arg Arg Leu His His Ile Gln Ile Ala Ser Thr Ala Ile Lys Val Thr		
	195	200 205
Glu Thr Arg Thr Gly Pro Leu Gly Cys Ser Asn Tyr Asp Asn Leu Asp		
	210 215	220
Ser Val Ser Ser Val Leu Val Gln Ser Pro Glu Asn Lys Ile Gln Leu		
225	230	235 240
Gln Gly Leu Gln Val Leu Leu Pro Asp Tyr Leu Gln Glu Arg Phe Val		
	245	250 255
Gln Ala Ala Leu Ser Tyr Ile Ala Cys Asn Ser Glu Gly Glu Phe Ile		
	260	265 270
Cys Lys Glu Asn Asp Cys Trp Cys His Cys Gly Pro Lys Phe Pro Glu		
	275	280 285
Cys Asn Cys Pro Ser Met Asp Ile Gln Ala Met Glu Glu Asn Leu Leu		
	290	295 300
Arg Ile Thr Glu Thr Trp Lys Ala Tyr Asn Ser Asp Phe Glu Glu Ser		
305	310	315 320
Asp Glu Phe Lys Leu Phe Met Lys Arg Leu Pro Met Asn Tyr Phe Leu		
	325	330 335
Asn Thr Ser Thr Ile Met His Leu Trp Thr Met Asp Ser Asn Phe Gln		
	340	345 350
Arg Arg Tyr Glu Gln Leu Glu Asn Ser Met Lys Gln Leu Phe Leu Lys		
	355	360 365
Ala Gln Lys Ile Val His Lys Leu Phe Ser Leu Ser Lys Arg Cys His		
	370	375 380
Lys Gln Pro Leu Ile Ser Leu Pro Arg Gln Arg Thr Ser Thr Tyr Trp		
385	390	395 400
Leu Thr Arg Ile Gln Ser Phe Leu Tyr Cys Asn Glu Asn Gly Leu Leu		
	405	410 415
Gly Ser Phe Ser Glu Glu Thr His Ser Cys Thr Cys Pro Asn Asp Gln		
	420	425 430
Val Val Cys Thr Ala Phe Leu Pro Cys Thr Val Gly Asp Ala Ser Ala		
	435	440 445
Cys Leu Thr Cys Ala Pro Asp Asn Arg Thr Arg Cys Gly Thr Cys Asn		

450	455	460
Thr Gly Tyr Met Leu Ser Gln Gly Leu Cys Lys Pro Glu Val Ala Glu 465	470	475 480
Ser Thr Asp His Tyr Ile Gly Phe Glu Thr Asp Leu Gln Asp Leu Glu 485	490	495
Met Lys Tyr Leu Leu Gln Lys Thr Asp Arg Arg Ile Glu Val His Ala 500	505	510
Ile Phe Ile Ser Asn Asp Met Arg Leu Asn Ser Trp Phe Asp Pro Ser 515	520	525
Trp Arg Lys Arg Met Leu Leu Thr Leu Lys Ser Asn Lys Tyr Lys Ser 530	535	540
Ser Leu Val His Met Ile Leu Gly Leu Ser Leu Gln Ile Cys Leu Thr 545	550	555 560
Lys Asn Ser Thr Leu Glu Pro Val Leu Ala Val Tyr Val Asn Pro Phe 565	570	575
Gly Gly Ser His Ser Glu Ser Trp Phe Met Pro Val Asn Glu Asn Ser 580	585	590
Phe Pro Asp Trp Glu Arg Thr Lys Leu Asp Leu Pro Leu Gln Cys Tyr 595	600	605
Asn Trp Thr Leu Thr Leu Gly Asn Lys Trp Lys Thr Phe Phe Glu Thr 610	615	620
Val His Ile Tyr Leu Arg Ser Arg Ile Lys Ser Asn Gly Pro Asn Gly 625	630	635 640
Asn Glu Ser Ile Tyr Tyr Glu Pro Leu Glu Phe Ile Asp Pro Ser Arg 645	650	655
Asn Leu Gly Tyr Met Lys Ile Asn Asn Ile Gln Val Phe Gly Tyr Ser 660	665	670
Met His Phe Asp Pro Glu Ala Ile Arg Asp Leu Ile Leu Gln Leu Asp 675	680	685
Tyr Pro Tyr Thr Gln Gly Ser Gln Asp Ser Ala Leu Leu Gln Leu Leu 690	695	700
Glu Ile Arg Asp Arg Val Asn Lys Leu Ser Pro Pro Gly Gln Arg Arg 705	710	715 720
Leu Asp Leu Phe Ser Cys Leu Leu Arg His Arg Leu Lys Leu Ser Thr 725	730	735
Ser Glu Val Val Arg Ile Gln Ser Ala Leu Gln Ala Phe Asn Ala Lys 740	745	750
Leu Pro Asn Thr Met Asp Tyr Asp Thr Thr Lys Leu Cys Ser 755	760	765



<210> 2230  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 2230  
 Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala  
   1                  5                  10                  15  
 Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser  
                   20                  25                  30  
 Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr  
           35                  40                  45  
 His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln  
       50                  55                  60

<210> 2231  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 2231  
 Met Arg Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr  
   1                  5                  10                  15  
 Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro  
                   20                  25                  30  
 Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile  
           35                  40                  45  
 Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly  
       50                  55                  60  
 Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr  
       65                  70                  75                  80  
 Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala  
                   85                  90                  95  
 Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro  
           100                  105                  110  
 Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val  
       115                  120                  125  
 Phe Phe Val Arg Asp  
       130

<210> 2232  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 2232

Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr Leu Leu  
 1 5 10 15

Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro Trp Asn  
 20 25 30

Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile Leu Leu  
 35 40 45

Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly Phe Asp  
 50 55 60

Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr Leu Ile  
 65 70 75 80

Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala Lys Leu  
 85 90 95

Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro Leu Trp  
 100 105 110

Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val Phe Phe  
 115 120 125

Val Arg Asp  
 130

&lt;210&gt; 2233

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2233

Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Val Pro Leu  
 1 5 10 15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp  
 20 25 30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu  
 35 40 45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile  
 50 55 60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr  
 65 70 75 80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu  
 85 90 95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp  
 100 105 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe  
 115 120 125

Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn  
 130 135 140  
 Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp  
 145 150 155 160  
 Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu  
 165 170 175  
 Asn Gln Leu Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe  
 180 185 190  
 Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala  
 195 200 205  
 Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala  
 210 215 220  
 Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His  
 225 230 235 240  
 Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys  
 245 250 255  
 Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu  
 260 265 270  
 Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys  
 275 280 285  
 Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe  
 290 295

<210> 2234  
 <211> 158  
 <212> PRT  
 <213> Homo sapiens

<400> 2234

Met Ala Ala Ala Ser Ala Gly Ala Thr Arg Leu Leu Leu Leu Leu Leu  
 1 5 10 15  
 Met Ala Val Ala Ala Pro Ser Arg Ala Arg Gly Ser Gly Cys Arg Ala  
 20 25 30  
 Gly Thr Gly Ala Arg Gly Ala Gly Ala Glu Gly Arg Glu Gly Glu Ala  
 35 40 45  
 Cys Gly Thr Val Gly Leu Leu Leu Glu His Ser Phe Glu Ile Asp Asp  
 50 55 60  
 Ser Ala Asn Phe Arg Lys Arg Gly Ser Leu Leu Trp Asn Gln Gln Asp  
 65 70 75 80  
 Gly Thr Leu Ser Leu Ser Gln Arg Gln Leu Ser Glu Glu Glu Arg Gly  
 85 90 95

Arg Leu Arg Asp Val Ala Ala Ser Tyr Leu Asp Cys Gly Ala Thr Arg  
 100 105 110

Ala Cys Gly Pro Leu Leu Cys Ala Thr Leu Pro Val Ser Leu Phe Lys  
 115 120 125

Asn Ile Asp Asp Thr Leu Lys Cys Val Asn Val Leu Lys Ser Tyr Ser  
 130 135 140

Phe Gln Gln Pro Lys Ala Thr Val Val Leu Ala Arg Arg Ser  
 145 150 155

<210> 2235  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 2235  
 Met Thr Lys Ala Leu Ile Pro Thr Pro Phe Phe Leu Ala Ala Met Trp  
 1 5 10 15

Pro Leu Trp Gln His Ser Trp Ala Gln Thr Leu Arg Ser Gln Arg Gln  
 20 25 30

Glu Ala Asp Ala Trp Ala Lys Ala Gly Ala Gly Asn Ser Arg Gly Ser  
 35 40 45

Leu Ala Trp Arg Leu Leu Met Ser Ser Gly  
 50 55

<210> 2236  
 <211> 71  
 <212> PRT  
 <213> Homo sapiens

<400> 2236  
 Met Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala  
 1 5 10 15

Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu  
 20 25 30

Pro Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val  
 35 40 45

Gly Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu  
 50 55 60

Ile His Val Gly Leu Leu Asn  
 65 70

<210> 2237  
 <211> 605  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2237

Met Gly Arg Leu Leu Arg Ala Ala Arg Leu Pro Pro Leu Leu Ser Pro  
 1 5 10 15  
 Leu Leu Leu Leu Leu Val Gly Gly Ala Phe Leu Gly Ala Cys Val Ala  
 20 25 30  
 Gly Ser Asp Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu  
 35 40 45  
 Asp Leu Leu Leu Pro Thr Gly Leu Glu Pro Leu Asp Ser Glu Glu Pro  
 50 55 60  
 Ser Glu Thr Met Gly Leu Gly Ala Gly Leu Gly Ala Pro Gly Ser Gly  
 65 70 75 80  
 Phe Pro Ser Glu Glu Asn Glu Glu Ser Arg Ile Leu Gln Pro Pro Gln  
 85 90 95  
 Tyr Phe Trp Glu Glu Glu Glu Glu Leu Asn Asp Ser Ser Leu Asp Leu  
 100 105 110  
 Gly Pro Thr Ala Asp Tyr Val Phe Pro Asp Leu Thr Glu Lys Ala Gly  
 115 120 125  
 Ser Ile Glu Asp Thr Ser Gln Ala Gln Glu Leu Pro Asn Leu Pro Ser  
 130 135 140  
 Pro Leu Pro Lys Met Asn Leu Val Glu Pro Pro Trp His Met Pro Pro  
 145 150 155 160  
 Arg Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Arg Glu Lys Glu  
 165 170 175  
 Glu Val Glu Lys Gln Glu Glu Glu Glu Glu Glu Glu Leu Leu Pro Val  
 180 185 190  
 Asn Gly Ser Gln Glu Glu Ala Lys Pro Gln Val Arg Asp Phe Ser Leu  
 195 200 205  
 Thr Ser Ser Ser Gln Thr Pro Gly Ala Thr Lys Ser Arg His Glu Asp  
 210 215 220  
 Ser Gly Asp Gln Ala Ser Ser Gly Val Glu Val Glu Ser Ser Met Gly  
 225 230 235 240  
 Pro Ser Leu Leu Leu Pro Ser Val Thr Pro Thr Thr Val Thr Pro Gly  
 245 250 255  
 Asp Gln Asp Ser Thr Ser Gln Glu Ala Glu Ala Thr Val Leu Pro Ala  
 260 265 270  
 Ala Gly Leu Gly Val Glu Phe Glu Ala Pro Gln Glu Ala Ser Glu Glu  
 275 280 285  
 Ala Thr Ala Gly Ala Ala Gly Leu Ser Gly Gln His Glu Glu Val Pro  
 290 295 300

Ala Leu Pro Ser Phe Pro Gln Thr Thr Ala Pro Ser Gly Ala Glu His  
 305 310 315 320  
 Pro Asp Glu Asp Pro Leu Gly Ser Arg Thr Ser Ala Ser Ser Pro Leu  
 325 330 335  
 Ala Pro Gly Asp Met Glu Leu Thr Pro Ser Ser Ala Thr Leu Gly Gln  
 340 345 350  
 Glu Asp Leu Asn Gln Gln Leu Leu Glu Gly Gln Ala Ala Glu Ala Gln  
 355 360 365  
 Ser Arg Ile Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp Ser  
 370 375 380  
 Asn Leu Ala Gly Lys Asn Tyr Ile Ile Leu Asn Met Thr Glu Asn Ile  
 385 390 395 400  
 Asp Cys Glu Val Phe Arg Gln His Arg Gly Pro Gln Leu Leu Ala Leu  
 405 410 415  
 Val Glu Glu Val Leu Pro Arg His Gly Ser Gly His His Gly Ala Trp  
 420 425 430  
 His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu Met  
 435 440 445  
 Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu Ser  
 450 455 460  
 Met Leu Gly Asp Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln Asn  
 465 470 475 480  
 Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Ser Gln Val Arg Ser  
 485 490 495  
 Asp Tyr Gly Thr Leu Phe Val Val Leu Val Val Ile Gly Ala Ile Cys  
 500 505 510  
 Ile Ile Ile Ile Ala Leu Gly Leu Leu Tyr Asn Cys Trp Gln Arg Arg  
 515 520 525  
 Leu Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg Phe Val  
 530 535 540  
 Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser Asp Ser  
 545 550 555 560  
 Gln Ser Glu Met Gln Glu Lys His Pro Ser Leu Asn Gly Gly Gly Ala  
 565 570 575  
 Leu Asn Gly Pro Gly Ser Trp Gly Ala Leu Met Gly Gly Lys Arg Asp  
 580 585 590  
 Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu  
 595 600 605

&lt;210&gt; 2238

&lt;211&gt; 432

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2238

Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser  
 1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr  
 20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser  
 35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn  
 50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys  
 65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro  
 85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu  
 100 105 110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val  
 115 120 125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser  
 130 135 140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg  
 145 150 155 160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln  
 165 170 175

Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser  
 180 185 190

Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser  
 195 200 205

Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met  
 210 215 220

Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr  
 225 230 235 240

Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser  
 245 250 255

Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu  
 260 265 270

Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp  
 275 280 285

Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe

290	295	300
Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu		
305	310	315 320
Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu		
	325	330 335
Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln		
	340	345 350
Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr		
	355	360 365
Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu		
	370	375 380
Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val		
385	390	395 400
Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys		
	405	410 415
Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val		
	420	425 430

&lt;210&gt; 2239

&lt;211&gt; 432

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2239

Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser		
1	5	10 15
Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr		
	20	25 30
Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser		
	35	40 45
Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn		
	50	55 60
Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys		
	65	70 75 80
Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro		
	85	90 95
Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu		
	100	105 110
Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val		
	115	120 125



Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser  
 130 135 140  
 Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg  
 145 150 155 160  
 Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln  
 165 170 175  
 Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser  
 180 185 190  
 Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser  
 195 200 205  
 Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met  
 210 215 220  
 Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr  
 225 230 235 240  
 Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser  
 245 250 255  
 Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu  
 260 265 270  
 Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp  
 275 280 285  
 Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe  
 290 295 300  
 Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu  
 305 310 315 320  
 Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu  
 325 330 335  
 Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln  
 340 345 350  
 Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr  
 355 360 365  
 Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu  
 370 375 380  
 Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val  
 385 390 395 400  
 Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys  
 405 410 415  
 Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val  
 420 425 430

&lt;210&gt; 2240

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2240

Met Lys Ala Val Val Leu Leu Lys Ala Phe Ser Phe Ser Leu Cys Ser  
 1 5 10 15

Ala Ile Ser Pro Val Thr Pro Gly Phe Arg Gln Thr Ile Asn Val Leu  
 20 25 30

Asp Thr Val Ala Phe Ser Ala Phe Phe Ile Tyr Leu Phe Thr Val Thr  
 35 40 45

Ala Ser Ile Asn Phe Tyr Ala Tyr Phe Ser Ser Phe Leu Ala Gly Ala  
 50 55 60

Pro Phe Ile Lys Ile  
 65

&lt;210&gt; 2241

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2241

Met Leu Asp Leu Ser Pro Ser Leu Thr Leu Lys Phe Cys Phe Leu His  
 1 5 10 15

Leu Val Phe Leu Pro Phe Lys Val Tyr Cys Gln Leu Leu Gln Glu Leu  
 20 25 30

Leu Ser Lys Pro Val Ser Lys Leu Pro Leu Thr Pro Gln Cys Gln Ser  
 35 40 45

Trp Ala Arg Pro Leu Gly Asp Leu Glu  
 50 55

&lt;210&gt; 2242

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2242

Met Leu Arg Thr Leu Val Leu Lys Gln Thr Leu Asp Leu Leu Leu Pro  
 1 5 10 15

Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu  
 20 25 30

Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Leu Gln Leu Leu Asp  
 35 40 45

Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala  
 50 55 60

Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu  
 65 70 75 80

Pro Trp Gln Gln Val Leu Ser Glu Leu Pro Val Ala Pro Ala Phe Gly  
 85 90 95

Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Leu Thr Phe Ser  
 100 105 110

His Trp Leu Phe Leu Ser His Pro Val Asp Thr Phe Gly Asn Ser Gln  
 115 120 125

Ala Tyr Pro Thr Ser Leu Ser Ala Leu Gln Ala Ser Ile Asn Cys Asn  
 130 135 140

Arg  
 145

<210> 2243

<211> 77

<212> PRT

<213> Homo sapiens

<400> 2243

Met Ala Ile Cys Gln Phe Phe Leu Gln Gly Arg Cys Arg Phe Gly Asp  
 1 5 10 15

Arg Cys Trp Asn Glu His Pro Gly Ala Arg Gly Ala Gly Gly Gly Arg  
 20 25 30

Gln Gln Pro Gln Gln Gln Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn  
 35 40 45

Thr Thr Ser Gln Arg Tyr Ser Asn Val Ile Gln Pro Ser Ser Phe Ser  
 50 55 60

Lys Ser Thr Pro Trp Gly Gly Ser Arg Asp Gln Glu Thr  
 65 70 75

<210> 2244

<211> 86

<212> PRT

<213> Homo sapiens

<400> 2244

Met Tyr Lys Leu Glu Leu Ile Phe Pro Thr Ala Leu Val Leu Pro Ile  
 1 5 10 15

Leu Val Asn Gly Thr Val Ile Cys Pro Leu Lys Ala Arg Asn Ser Val  
 20 25 30

Ile Pro Ser Ser Ser Phe Leu Thr Ser Leu Gln Leu Thr Ile Trp Ile

35                                      40                                      45  
 Gln Pro Cys Leu Phe Leu Pro Thr Thr Thr Gly Leu Ser Ser Gly Tyr  
     50                                      55                                      60  
 His Thr Phe Leu Ser Gly Leu His Ser Cys His Ile Ser Phe Ala Thr  
     65                                      70                                      75                                      80  
 Ala Ile Pro Gly Cys Leu  
                                     85

&lt;210&gt; 2245

&lt;211&gt; 208

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2245

Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly Thr  
     1                                      5                                      10                                      15  
 Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met  
                                     20                                      25                                      30  
 Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser  
                                     35                                      40                                      45  
 Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn  
                                     50                                      55                                      60  
 Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp  
     65                                      70                                      75                                      80  
 Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn  
                                     85                                      90                                      95  
 Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu  
                                     100                                      105                                      110  
 Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile  
                                     115                                      120                                      125  
 Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala  
                                     130                                      135                                      140  
 Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys  
     145                                      150                                      155                                      160  
 Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr  
                                     165                                      170                                      175  
 Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser  
                                     180                                      185                                      190  
 Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile  
                                     195                                      200                                      205

<210> 2246  
 <211> 215  
 <212> PRT  
 <213> Homo sapiens

<400> 2246  
 Met Arg Leu Pro Ala Trp Cys Arg His Thr Thr Leu Ala Ile Ser Cys  
           1                  5                  10                  15  
 Trp His Cys Leu Val Leu Ala Arg Ala Ser Ala Asp Ser Ala Ser Leu  
                   20                  25                  30  
 Pro Thr Ile Ser His Leu Gly Val Lys Pro Leu Ser Val Gly Trp Gly  
                   35                  40                  45  
 Ala Pro Ser Thr Leu Pro Val Ser Pro Cys Gly Gly Lys Pro Ala Ala  
           50                  55                  60  
 Pro Thr Ser Ala Ser Pro Ala Ala Ala Pro Leu Arg Phe Trp Arg Pro  
           65                  70                  75                  80  
 Gly Ala Ser Gly Gly Gly Ala Gly Gly Thr Arg Arg Leu Ala Leu Cys  
                   85                  90                  95  
 Arg Leu Val Thr Ala Arg Thr Thr Leu Ala Thr Gly Thr Pro Gly Leu  
                   100                  105                  110  
 Ser Ala Arg Pro Arg Gln Arg Pro Cys Leu Leu Pro Val Leu Pro Arg  
           115                  120                  125  
 Arg Pro Ala Glu Leu Ser Val Ser Leu Glu Pro Ser Pro Gly Ser Ser  
           130                  135                  140  
 Gly Arg Gly Phe Leu Cys Leu Pro Phe Cys Lys Arg Asp Ala Asp Thr  
           145                  150                  155                  160  
 Ser Leu Gly Gln Thr Leu Thr Ser Ser Cys Ser Leu Ser Ser Ile Leu  
                   165                  170                  175  
 Val Gly Gly Thr Leu Arg Pro Arg Cys Ser Cys Pro Pro Phe Thr Gln  
                   180                  185                  190  
 Arg Ser Ala Phe His Leu Arg Thr Pro His Asn Gln Tyr His His Gly  
           195                  200                  205  
 Ser Thr Ser Leu Ala Ser His  
           210                  215

<210> 2247  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 2247  
 Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn

```
<210> 2248
<211> 363
<212> PRT
<213> Homo sapiens
```

Met	Lys	Thr	Leu	Leu	Leu	Val	Gly	Leu	Leu	Thr	Trp	Glu	Asn						
1				5				10					15						
Gly	Arg	Val	Leu	Gly	Asp	Gln	Met	Val	Ser	Asp	Thr	Glu	Leu	Gln	Glu				
		20						25					30						
Met	Ser	Thr	Glu	Gly	Ser	Lys	Tyr	Ile	Asn	Arg	Glu	Ile	Lys	Asn	Ala				
		35					40					45							
Leu	Lys	Gly	Val	Lys	Gln	Ile	Lys	Thr	Leu	Ile	Glu	Gln	Thr	Asn	Glu				
	50					55					60								
Glu	Arg	Lys	Ser	Leu	Leu	Thr	Asn	Leu	Glu	Glu	Ala	Lys	Lys	Lys	Lys				
65					70					75									80
Glu	Asp	Ala	Leu	Asn	Asp	Thr	Lys	Asp	Ser	Glu	Met	Lys	Leu	Lys	Ala				
			85						90						95				
Ser	Gln	Gly	Val	Cys	Asn	Asp	Thr	Met	Met	Ala	Leu	Trp	Glu	Glu	Cys				
			100					105					110						
Lys	Pro	Cys	Leu	Lys	Gln	Thr	Cys	Met	Lys	Phe	Tyr	Ala	Arg	Val	Cys				
		115					120					125							
Arg	Ser	Ser	Thr	Gly	Leu	Val	Gly	His	Gln	Val	Glu	Glu	Phe	Leu	Asn				
130						135					140								

Gln Ser Ser Pro Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser  
 145 150 155 160  
 Leu Leu Glu Asn Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln  
 165 170 175  
 Asp Ser Phe Asp Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp  
 180 185 190  
 Arg Phe Phe Thr Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe  
 195 200 205  
 Ser Ser Phe Gln Arg Arg Pro Phe Phe Phe Asn Ile Lys His Arg Phe  
 210 215 220  
 Ala Arg Asn Ile Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His  
 225 230 235 240  
 Asp Met Phe Gln Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala  
 245 250 255  
 Met Asp Val Asn Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr  
 260 265 270  
 Glu Glu Asp Asn Gln Asp Gly Ala Val Cys Lys Glu Ile Arg His Asn  
 275 280 285  
 Ser Thr Gly Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu  
 290 295 300  
 Ile Leu Ser Val Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Leu  
 305 310 315 320  
 Arg Gln Glu Leu Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys  
 325 330 335  
 Leu Val Arg Arg Ala Ala Ala Val Leu Pro Gly Glu Asp Val Gln His  
 340 345 350  
 Val Leu Pro Ala Glu Ala Ala Gly Arg Ala Val  
 355 360

&lt;210&gt; 2249

&lt;211&gt; 85

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2249

Met Ala Ala Gly Gly Cys Leu Leu Leu Leu Ala Phe Phe Pro Leu Ser  
 1 5 10 15  
 Arg Gly Ser His Phe His Leu Gln Lys Arg Ala Leu Ala Glu Ala Ser  
 20 25 30  
 Phe Glu Ala Thr Leu Cys Glu Leu Phe Val Ile Glu Thr Ala Ser Lys  
 35 40 45

Gly Thr Leu Leu Ile Ile Thr Ile Arg His Leu Val Thr Tyr Ile Ile  
 50 55 60

Val Ile Phe Lys Cys His Met Leu Lys Asn Glu Met Asn Ser Ser Ile  
 65 70 75 80

Lys Pro His Phe Gln  
 85

<210> 2250

<211> 184

<212> PRT

<213> Homo sapiens

<400> 2250

Met Lys Ala Leu Gly Ala Val Leu Leu Ala Leu Leu Leu Cys Gly Arg  
 1 5 10 15

Pro Gly Arg Gly Gln Thr Gln Gln Glu Glu Glu Glu Asp Glu Asp  
 20 25 30

His Gly Pro Asp Asp Tyr Asp Glu Glu Asp Glu Asp Glu Val Glu Glu  
 35 40 45

Glu Glu Thr Asn Arg Leu Pro Gly Gly Arg Ser Arg Val Leu Leu Arg  
 50 55 60

Cys Tyr Thr Cys Lys Ser Leu Pro Arg Asp Glu Arg Cys Asn Leu Thr  
 65 70 75 80

Gln Asn Cys Ser His Gly Gln Thr Cys Thr Thr Leu Ile Ala His Gly  
 85 90 95

Asn Thr Glu Ser Gly Leu Leu Thr Thr His Ser Thr Trp Cys Thr Asp  
 100 105 110

Ser Cys Gln Pro Ile Thr Lys Thr Val Glu Gly Thr Gln Val Thr Met  
 115 120 125

Thr Cys Cys Gln Ser Ser Leu Cys Asn Val Pro Pro Trp Gln Ser Ser  
 130 135 140

Arg Val Gln Asp Pro Thr Gly Lys Gly Ala Gly Gly Pro Arg Gly Ser  
 145 150 155 160

Ser Glu Thr Val Gly Ala Ala Leu Leu Leu Asn Leu Leu Ala Gly Leu  
 165 170 175

Gly Ala Met Gly Ala Arg Arg Pro  
 180

<210> 2251

<211> 352

<212> PRT

<213> Homo sapiens



&lt;400&gt; 2251

Met Val Glu Ala Leu Arg Ala Gly Ser Ala Arg Leu Val Ala Ala Pro  
 1 5 10 15

Val Ala Thr Ala Asn Pro Ala Arg Cys Leu Ala Leu Asn Val Ser Leu  
 20 25 30

Arg Glu Trp Thr Ala Arg Tyr Gly Ala Ala Pro Ala Ala Pro Arg Cys  
 35 40 45

Asp Ala Leu Asp Gly Asp Ala Val Val Leu Leu Arg Ala Arg Asp Leu  
 50 55 60

Phe Asn Leu Ser Ala Pro Leu Ala Arg Pro Val Gly Thr Ser Leu Phe  
 65 70 75 80

Leu Gln Thr Ala Leu Arg Gly Trp Ala Val Gln Leu Leu Asp Leu Thr  
 85 90 95

Phe Ala Ala Ala Arg Gln Pro Pro Leu Ala Thr Ala His Ala Arg Trp  
 100 105 110

Lys Ala Glu Arg Glu Gly Arg Ala Arg Arg Ala Ala Leu Leu Arg Ala  
 115 120 125

Leu Gly Ile Arg Leu Val Ser Trp Glu Gly Gly Arg Leu Glu Trp Phe  
 130 135 140

Gly Cys Asn Lys Glu Thr Thr Arg Cys Phe Gly Thr Val Val Gly Asp  
 145 150 155 160

Thr Pro Ala Tyr Leu Tyr Glu Glu Arg Trp Thr Pro Pro Cys Cys Leu  
 165 170 175

Arg Ala Leu Arg Glu Thr Ala Arg Tyr Val Val Gly Val Leu Glu Ala  
 180 185 190

Ala Gly Val Arg Tyr Trp Leu Glu Gly Gly Ser Leu Leu Gly Ala Ala  
 195 200 205

Arg His Gly Asp Ile Ile Pro Trp Asp Tyr Asp Val Asp Leu Gly Ile  
 210 215 220

Tyr Leu Glu Asp Val Gly Asn Cys Glu Gln Leu Arg Gly Ala Glu Ala  
 225 230 235 240

Gly Ser Val Val Asp Glu Arg Gly Phe Val Trp Glu Lys Ala Val Glu  
 245 250 255

Gly Asp Phe Phe Arg Val Gln Tyr Ser Glu Ser Asn His Leu His Val  
 260 265 270

Asp Leu Trp Pro Phe Tyr Pro Arg Asn Gly Val Met Thr Lys Asp Thr  
 275 280 285

Trp Leu Asp His Arg Gln Asp Val Glu Phe Pro Glu His Phe Leu Gln  
 290 295 300

Pro Leu Val Pro Leu Pro Phe Ala Gly Phe Val Ala Gln Ala Pro Asn  
 305 310 315 320

Asn Tyr Arg Arg Phe Leu Glu Leu Lys Phe Gly Pro Gly Val Ile Glu  
325 330 335

Asn Pro Gln Tyr Pro Asn Pro Ala Leu Leu Ser Leu Thr Gly Ser Gly  
340 345 350

<210> 2252

<211> 448

<212> PRT

<213> Homo sapiens

<400> 2252

Met Ala Trp Ala Ser Arg Leu Gly Leu Leu Leu Ala Leu Leu Leu Pro  
1 5 10 15

Val Val Gly Ala Ser Thr Pro Gly Thr Val Val Arg Leu Asn Lys Ala  
20 25 30

Ala Leu Ser Tyr Val Ser Glu Ile Gly Lys Ala Pro Leu Gln Arg Ala  
35 40 45

Leu Gln Val Thr Val Pro His Phe Leu Asp Trp Ser Gly Glu Ala Leu  
50 55 60

Gln Pro Thr Arg Ile Arg Ile Leu Asn Val His Val Pro Arg Leu His  
65 70 75 80

Leu Lys Phe Ile Ala Gly Phe Gly Val Arg Leu Leu Ala Ala Ala Asn  
85 90 95

Phe Thr Phe Lys Val Phe Arg Ala Pro Glu Pro Leu Glu Leu Thr Leu  
100 105 110

Pro Val Glu Leu Leu Ala Asp Thr Arg Val Thr Gln Ser Ser Ile Arg  
115 120 125

Thr Pro Val Val Ser Ile Ser Ala Cys Ser Leu Phe Ser Gly His Ala  
130 135 140

Asn Glu Phe Asp Gly Ser Asn Ser Thr Ser His Ala Leu Leu Val Leu  
145 150 155 160

Val Gln Lys His Ile Lys Ala Val Leu Ser Asn Lys Leu Cys Leu Ser  
165 170 175

Ile Ser Asn Leu Val Gln Gly Val Asn Val His Leu Gly Thr Leu Ile  
180 185 190

Gly Leu Asn Pro Val Gly Pro Glu Ser Gln Ile Arg Tyr Ser Met Val  
195 200 205

Ser Val Pro Thr Val Thr Ser Asp Tyr Ile Ser Leu Glu Val Asn Ala  
210 215 220

Val Leu Phe Leu Leu Gly Lys Pro Ile Ile Leu Pro Thr Asp Ala Thr  
 235 230 235 240  
 Pro Phe Val Leu Pro Arg His Val Gly Thr Glu Gly Ser Met Ala Thr  
 245 250 255  
 Val Gly Leu Ser Gln Gln Leu Phe Asp Ser Ala Leu Leu Leu Leu Gln  
 260 265 270  
 Lys Ala Gly Ala Leu Asn Leu Asp Ile Thr Gly Gln Leu Arg Ser Asp  
 275 280 285  
 Asp Asn Leu Leu Asn Thr Ser Ala Leu Gly Arg Leu Ile Pro Glu Val  
 290 295 300  
 Ala Arg Gln Phe Pro Glu Pro Met Pro Val Val Leu Lys Val Arg Leu  
 305 310 315 320  
 Gly Ala Thr Pro Val Ala Met Leu His Thr Asn Asn Ala Thr Leu Arg  
 325 330 335  
 Leu Gln Pro Phe Val Glu Val Leu Ala Thr Ala Ser Asn Ser Ala Phe  
 340 345 350  
 Gln Ser Leu Phe Ser Leu Asp Val Val Val Asn Leu Arg Leu Gln Leu  
 355 360 365  
 Ser Val Ser Lys Val Lys Leu Gln Gly Thr Thr Ser Val Leu Gly Asp  
 370 375 380  
 Val Gln Leu Thr Val Ala Ser Ser Asn Val Gly Phe Ile Asp Thr Asp  
 385 390 395 400  
 Gln Val Arg Thr Leu Met Gly Thr Val Phe Glu Lys Pro Leu Leu Asp  
 405 410 415  
 His Leu Asn Ala Leu Leu Ala Met Gly Ile Ala Leu Pro Gly Val Val  
 420 425 430  
 Asn Leu His Tyr Val Pro Leu Arg Ser Leu Ser Met Arg Ala Thr Trp  
 435 440 445

&lt;210&gt; 2253

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2253

Met Glu Pro Glu Glu Gly Thr Pro Leu Trp Arg Leu Gln Lys Leu Pro  
 1 5 10 15

Ala Glu Leu Gly Pro Gln Leu Leu His Lys Ile Ile Asp Gly Ile Cys  
 20 25 30

Gly Arg Ala Tyr Pro Val Tyr Gln Asp Tyr His Thr Val Trp Glu Ser

35                      40                      45  
 Glu Glu Trp Met His Val Leu Glu Asp Ile Ala Lys Phe Phe Lys Ala  
     50                      55                      60  
 Ile Val Gly Lys Asn Leu Pro Asp Glu Glu Ile Phe Gln Gln Leu Asn  
     65                      70                      75                      80  
 Gln Leu Asn Ser Leu His Gln Glu Thr Ile Met Lys Cys Val Lys Ser  
                     85                      90                      95  
 Arg Lys Asp Glu Ile Lys Gln Ala Leu Ser Arg Glu Ile Val Ala Ile  
                     100                      105                      110  
 Ser Ser Ala Gln Leu Gln Asp Phe Asp Trp Gln Val Lys Leu Ala Leu  
                     115                      120                      125  
 Ser Ser Asp Lys Ile Ala Ala Leu Arg Met Pro Leu Leu Ser Leu His  
                     130                      135                      140  
 Leu Asp Val Lys Glu Asn Gly Glu Val Lys Pro Tyr Ser Ile Glu Met  
     145                      150                      155                      160  
 Ser Arg Glu Glu Leu Gln Asn Leu Ile Gln Ser Leu Glu Ala Ala Asn  
                     165                      170                      175  
 Lys Val Val Leu Gln Leu Lys  
                     180

&lt;210&gt; 2254

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2254

Met Pro Cys Gly Arg Gln His Leu Gln Asn Leu Asp Asp Ala Val Asn  
     1                      5                      10                      15  
 Gly Ser Ala Trp Thr Ile Leu Leu Leu Thr Glu Asn Phe Leu Arg Asp  
                     20                      25                      30  
 Thr Trp Cys Asn Phe Gln Phe Tyr Thr Ser Leu Met Asn Ser Val Asn  
                     35                      40                      45  
 Arg Gln His Lys Tyr Asn Ser Val Ile Pro Met Arg Pro Leu Asn Asn  
                     50                      55                      60  
 Pro Leu Pro Arg Glu Arg Thr Pro Phe Ala Leu Gln Thr Ile Asn Ala  
                     65                      70                      75                      80  
 Leu Glu Glu Glu Ser Arg Gly Phe Pro Thr Gln Val Glu Arg Ile Phe  
                     85                      90                      95  
 Gln Glu Ser Val Tyr Lys Thr Gln Gln Thr Ile Trp Lys Glu Thr Arg  
                     100                      105                      110  
 Asn Met Val Gln Arg Gln Phe Ile Ala  
                     115                      120

&lt;210&gt; 2255

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2255

Met Leu Phe His Tyr Asp Trp Ile Ser Ile Pro Leu Val Tyr Thr Gln  
 1 5 10 15

Val Val Thr Ile Ala Val Tyr Ser Phe Phe Ala Leu Ser Leu Val Gly  
 20 25 30

Arg Gln Phe Val Glu Pro Glu Ala Gly Ala Ala Lys Pro Gln Lys Leu  
 35 40 45

Leu Lys Pro Gly Gln Glu Pro Ala Pro Ala Leu Gly Asp Pro Asp Met  
 50 55 60

Tyr Val Pro Leu Thr Thr Leu Leu Gln Phe Phe Phe Tyr Ala Gly Trp  
 65 70 75 80

Leu Lys Val Ala Glu Gln Ile Ile Asn Pro Phe Gly Glu Asp Asp Asp  
 85 90 95

Asp Phe Glu Thr Asn Gln Leu Ile Asp Arg Asn Leu Gln Val Ser Leu  
 100 105 110

Leu Ser Val Asp Glu Met Tyr Gln Asn Leu Pro Pro Ala Glu Lys Asp  
 115 120 125

Gln Tyr Trp Asp Glu Asp Gln Pro Gln Pro Pro Tyr Thr Val Ala Thr  
 130 135 140

Ala Ala Glu Ser Leu Arg Pro Ser Phe Leu Gly Ser Thr Phe Asn Leu  
 145 150 155 160

Arg Met Ser Asp Asp Pro Glu Gln Ser Leu Gln Val Glu Ala Ser Pro  
 165 170 175

Gly Ser Gly Arg Pro Ala Pro Ala Ala Gln Thr Pro Leu Leu Gly Arg  
 180 185 190

Phe Leu Gly Val Gly Ala Pro Ser Pro Ala Ile Ser Leu Arg Asn Phe  
 195 200 205

Gly Arg Val Arg Gly Thr Pro Arg Pro Pro His Leu Leu Arg Phe Arg  
 210 215 220

Ala Glu Glu Gly Gly Asp Pro Glu Ala Ala Ala Arg Ile Glu Glu Glu  
 225 230 235 240

Ser Ala Glu Ser Gly Asp Glu Ala Leu Glu Pro  
 245 250

&lt;210&gt; 2256

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2256

Met Arg Pro Gly Lys Lys Val Leu Val Met Gly Ile Val Asp Leu Asn  
 1 5 10 15

Pro Glu Ser Phe Ala Ile Ser Leu Thr Cys Gly Asp Ser Glu Asp Pro  
 20 25 30

Pro Ala Asp Val Ala Ile Glu Leu Lys Ala Val Phe Thr Asp Arg Gln  
 35 40 45

Leu Leu Arg Asn Ser Cys Ile Ser Gly Glu Arg Gly Glu Glu Gln Ser  
 50 55 60

Ala Ile Pro Tyr Phe Pro Phe Ile Pro Asp Gln Pro Phe Arg Val Glu  
 65 70 75 80

Ile Leu Cys Glu His Pro Arg Phe Arg Val Phe Val Asp Gly His Gln  
 85 90 95

Leu Phe Asp Phe Tyr His Arg Ile Gln Thr Leu Ser Ala Ile Asp Thr  
 100 105 110

Ile Lys Ile Asn Gly Asp Leu Gln Ile Thr Lys Leu Gly  
 115 120 125

&lt;210&gt; 2257

&lt;211&gt; 170

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2257

Met Ile Ser Ile His Asn Glu Glu Glu Asn Ala Phe Ile Leu Asp Thr  
 1 5 10 15

Leu Lys Lys Gln Trp Lys Gly Pro Asp Asp Ile Leu Leu Gly Met Phe  
 20 25 30

Tyr Asp Thr Asp Asp Ala Ser Phe Lys Trp Phe Asp Asn Ser Asn Met  
 35 40 45

Thr Phe Asp Lys Trp Thr Asp Gln Asp Asp Asp Glu Asp Leu Val Asp  
 50 55 60

Thr Cys Ala Phe Leu His Ile Lys Thr Gly Glu Trp Lys Lys Gly Asn  
 65 70 75 80

Cys Glu Val Ser Ser Val Glu Gly Thr Leu Cys Lys Thr Ala Ile Pro  
 85 90 95

Tyr Lys Arg Lys Tyr Leu Ser Asp Asn His Ile Leu Ile Ser Ala Leu  
 100 105 110

Val Ile Ala Ser Thr Val Ile Leu Thr Val Leu Gly Ala Ile Ile Trp  
 115 120 125

Phe Leu Tyr Lys Lys His Ser Asp Ser Arg Phe Thr Thr Val Phe Ser  
130 135 140

Thr Ala Pro Gln Ser Pro Tyr Asn Glu Asp Cys Val Leu Val Val Gly  
145 150 155 160

Glu Glu Asn Glu Tyr Pro Val Gln Phe Asp  
165 170

<210> 2258

<211> 595

<212> PRT

<213> Homo sapiens

<400> 2258

Met Leu Leu Leu Leu Leu Leu Leu Pro Pro Leu Leu Cys Gly Arg Val  
1 5 10 15

Gly Ala Lys Glu Gln Lys Asp Tyr Leu Leu Thr Met Gln Lys Ser Val  
20 25 30

Thr Val Gln Glu Gly Leu Cys Val Ser Val Leu Cys Ser Phe Ser Tyr  
35 40 45

Pro Gln Asn Gly Trp Thr Ala Ser Asp Pro Val His Gly Tyr Trp Phe  
50 55 60

Arg Ala Gly Asp His Val Ser Arg Asn Ile Pro Val Ala Thr Asn Asn  
65 70 75 80

Pro Ala Arg Ala Val Gln Glu Glu Thr Arg Asp Arg Phe His Leu Leu  
85 90 95

Gly Asp Pro Gln Asn Lys Asp Cys Thr Leu Ser Ile Arg Asp Thr Arg  
100 105 110

Glu Ser Asp Ala Gly Thr Tyr Val Phe Cys Val Glu Arg Gly Asn Met  
115 120 125

Lys Trp Asn Tyr Lys Tyr Asp Gln Leu Ser Val Asn Val Thr Ala Ser  
130 135 140

Gln Asp Leu Leu Ser Arg Tyr Arg Leu Glu Val Pro Glu Ser Val Thr  
145 150 155 160

Val Gln Glu Gly Leu Cys Val Ser Val Pro Cys Ser Val Leu Tyr Pro  
165 170 175

His Tyr Asn Trp Thr Ala Ser Ser Pro Val Tyr Gly Ser Trp Phe Lys  
180 185 190

Glu Gly Ala Asp Ile Pro Trp Asp Ile Pro Val Ala Thr Asn Thr Pro  
195 200 205

Ser Gly Lys Val Gln Glu Asp Thr His Gly Arg Phe Leu Leu Leu Gly  
210 215 220

Asp Pro Gln Thr Asn Asn Cys Ser Leu Ser Ile Arg Asp Ala Arg Lys  
 225 230 235 240  
 Gly Asp Ser Gly Lys Tyr Tyr Phe Gln Val Glu Arg Gly Ser Arg Lys  
 245 250 255  
 Trp Asn Tyr Ile Tyr Asp Lys Leu Ser Val His Val Thr Ala Leu Thr  
 260 265 270  
 His Met Pro Thr Phe Ser Ile Pro Gly Thr Leu Glu Ser Gly His Pro  
 275 280 285  
 Arg Asn Leu Thr Cys Ser Val Pro Trp Ala Cys Glu Gln Gly Thr Pro  
 290 295 300  
 Pro Thr Ile Thr Trp Met Gly Ala Ser Val Ser Ser Leu Asp Pro Thr  
 305 310 315 320  
 Ile Thr Arg Ser Ser Met Leu Ser Leu Ile Pro Gln Pro Gln Asp His  
 325 330 335  
 Gly Thr Ser Leu Thr Cys Gln Val Thr Leu Pro Gly Ala Gly Val Thr  
 340 345 350  
 Met Thr Arg Ala Val Arg Leu Asn Ile Ser Tyr Pro Pro Gln Asn Leu  
 355 360 365  
 Thr Met Thr Val Phe Gln Gly Asp Gly Thr Ala Ser Thr Thr Leu Arg  
 370 375 380  
 Asn Gly Ser Ala Leu Ser Val Leu Glu Gly Gln Ser Leu His Leu Val  
 385 390 395 400  
 Cys Ala Val Asp Ser Asn Pro Pro Ala Arg Leu Ser Trp Thr Trp Gly  
 405 410 415  
 Ser Leu Thr Leu Ser Pro Ser Gln Ser Ser Asn Leu Gly Val Leu Glu  
 420 425 430  
 Leu Pro Arg Val His Val Lys Asp Glu Gly Glu Phe Thr Cys Arg Ala  
 435 440 445  
 Gln Asn Pro Leu Gly Ser Gln His Ile Ser Leu Ser Leu Ser Leu Gln  
 450 455 460  
 Asn Glu Tyr Thr Gly Lys Met Arg Pro Ile Ser Gly Val Thr Leu Gly  
 465 470 475 480  
 Ala Phe Gly Gly Ala Gly Ala Thr Ala Leu Val Phe Leu Tyr Phe Cys  
 485 490 495  
 Ile Ile Phe Val Val Val Arg Ser Cys Arg Lys Lys Ser Ala Arg Pro  
 500 505 510  
 Ala Val Gly Val Gly Asp Thr Gly Met Glu Asp Ala Asn Ala Val Arg  
 515 520 525  
 Gly Ser Ala Ser Gln Gly Pro Leu Ile Glu Ser Pro Ala Asp Asp Ser  
 530 535 540



Pro Pro His His Ala Pro Pro Ala Leu Ala Thr Pro Ser Pro Glu Glu  
545 550 555 560

Gly Glu Ile Gln Tyr Ala Ser Leu Ser Phe His Lys Ala Arg Pro Gln  
565 570 575

Tyr Pro Gln Glu Gln Glu Ala Ile Gly Tyr Glu Tyr Ser Glu Ile Asn  
580 585 590

Ile Pro Lys  
595

<210> 2259

<211> 274

<212> PRT

<213> Homo sapiens

<400> 2259

Met Ser Ser Asn Gly Ile Pro Glu Cys Tyr Ala Glu Glu Asp Glu Phe  
1 5 10 15

Ser Gly Leu Glu Thr Asp Thr Ala Val Pro Thr Glu Glu Ala Tyr Val  
20 25 30

Ile Tyr Asp Glu Asp Tyr Glu Phe Glu Thr Ser Arg Pro Pro Thr Thr  
35 40 45

Thr Glu Pro Ser Thr Thr Ala Thr Thr Pro Arg Val Ile Pro Glu Glu  
50 55 60

Gly Ala Ile Ser Ser Phe Pro Glu Glu Glu Phe Asp Leu Ala Gly Arg  
65 70 75 80

Lys Arg Phe Val Ala Pro Tyr Val Thr Tyr Leu Asn Lys Asp Pro Ser  
85 90 95

Ala Pro Cys Ser Leu Thr Asp Ala Leu Asp His Phe Gln Val Asp Ser  
100 105 110

Leu Asp Glu Ile Ile Pro Asn Asp Leu Lys Lys Ser Asp Leu Pro Pro  
115 120 125

Gln His Ala Pro Arg Asn Ile Thr Val Val Ala Val Glu Gly Cys His  
130 135 140

Ser Phe Val Ile Val Asp Trp Asp Lys Ala Thr Pro Gly Asp Val Val  
145 150 155 160

Thr Gly Tyr Leu Val Tyr Ser Ala Ser Tyr Glu Asp Phe Ile Arg Asn  
165 170 175

Lys Trp Ser Thr Gln Ala Ser Ser Val Thr His Leu Pro Ile Glu Asn  
180 185 190

Leu Lys Pro Asn Thr Arg Tyr Tyr Phe Lys Val Gln Ala Gln Asn Pro  
195 200 205

His Gly Tyr Gly Pro Ile Ser Pro Ser Val Ser Phe Val Thr Glu Ser

210	215	220
Asp Asn Pro Leu Leu Val Val Arg Pro Pro Gly Gly Glu Pro Ile Trp		
225	230	235 240
Ile Pro Phe Ala Phe Lys His Asp Pro Ser Tyr Thr Asp Cys His Gly		
	245	250 255
Arg Gln Tyr Val Lys Arg Thr Leu Val Ser Lys Val Arg Gly Ser Trp		
	260	265 270
Ser Leu		

&lt;210&gt; 2260

&lt;211&gt; 468

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2260

Met Pro Ala Leu His Thr Leu Asn Leu Asp His Asn Leu Ile Asp Ala		
1	5	10 15
Leu Pro Pro Gly Ala Phe Ala Gln Leu Gly Gln Leu Ser Arg Leu Asp		
	20	25 30
Leu Thr Ser Asn Arg Leu Ala Thr Leu Ala Pro Asp Pro Leu Phe Ser		
	35	40 45
Arg Gly Arg Asp Ala Glu Ala Ser Pro Ala Pro Leu Val Leu Ser Phe		
	50	55 60
Ser Gly Asn Pro Leu His Cys Asn Cys Glu Leu Leu Trp Leu Arg Arg		
	65	70 75 80
Leu Ala Arg Pro Asp Asp Leu Glu Thr Cys Ala Ser Pro Pro Gly Leu		
	85	90 95
Ala Gly Arg Tyr Phe Trp Ala Val Pro Glu Gly Glu Phe Ser Cys Glu		
	100	105 110
Pro Pro Leu Ile Ala Arg His Thr Gln Arg Leu Trp Val Leu Glu Gly		
	115	120 125
Gln Arg Ala Thr Leu Arg Cys Arg Ala Leu Gly Asp Pro Ala Pro Thr		
	130	135 140
Met His Trp Val Gly Pro Asp Asp Arg Leu Val Gly Asn Ser Ser Arg		
	145	150 155 160
Ala Arg Ala Phe Pro Asn Gly Thr Leu Glu Ile Gly Ala Thr Gly Ala		
	165	170 175
Gly Asp Ala Gly Gly Tyr Thr Cys Ile Ala Thr Asn Pro Ala Gly Glu		
	180	185 190
Ala Thr Ala Arg Val Glu Leu Arg Val Leu Ala Leu Pro His Gly Gly		
	195	200 205

Asn Ser Ser Ala Glu Gly Gly Arg Pro Gly Pro Ser Asp Ile Ala Ala  
 210 215 220  
 Ser Ala Arg Thr Ala Ala Glu Gly Glu Gly Thr Leu Glu Ser Glu Pro  
 225 230 235 240  
 Ala Val Gln Val Thr Glu Val Thr Ala Thr Ser Gly Leu Val Ser Trp  
 245 250 255  
 Gly Pro Gly Arg Pro Ala Asp Pro Val Trp Met Phe Gln Ile Gln Tyr  
 260 265 270  
 Asn Ser Ser Glu Asp Glu Thr Leu Ile Tyr Arg Ile Val Pro Ala Ser  
 275 280 285  
 Ser His His Phe Leu Leu Lys His Leu Val Pro Gly Ala Asp Tyr Asp  
 290 295 300  
 Leu Cys Leu Leu Ala Leu Ser Pro Ala Ala Gly Pro Ser Asp Leu Thr  
 305 310 315 320  
 Ala Thr Arg Leu Leu Gly Cys Ala His Phe Ser Thr Leu Pro Ala Ser  
 325 330 335  
 Pro Leu Cys His Ala Leu Gln Ala His Val Leu Gly Gly Thr Leu Thr  
 340 345 350  
 Val Ala Val Gly Gly Val Leu Val Ala Ala Leu Leu Val Phe Thr Val  
 355 360 365  
 Ala Leu Leu Val Arg Gly Arg Gly Ala Gly Asn Gly Arg Leu Pro Leu  
 370 375 380  
 Lys Leu Ser His Val Gln Ser Gln Thr Asn Gly Gly Pro Ser Pro Thr  
 385 390 395 400  
 Pro Lys Ala His Pro Pro Arg Ser Pro Pro Arg Pro Gln Arg Ser  
 405 410 415  
 Cys Ser Leu Asp Leu Gly Asp Ala Gly Cys Tyr Gly Tyr Ala Arg Arg  
 420 425 430  
 Leu Gly Gly Ala Trp Ala Arg Arg Ser His Ser Val His Gly Gly Leu  
 435 440 445  
 Leu Gly Ala Gly Cys Arg Gly Val Gly Gly Ser Ala Glu Arg Leu Glu  
 450 455 460  
 Glu Ser Val Val  
 465

&lt;210&gt; 2261

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2261

Met Asn Arg Gly Asp Phe Leu Leu Ser Val Asn Gly Ala Ser Leu Ala  
 1 5 10 15  
 Gly Leu Ala His Gly Asn Val Leu Lys Val Leu His Gln Ala Gln Leu  
 20 25 30  
 His Lys Asp Ala Leu Val Val Ile Lys Lys Gly Met Asp Gln Pro Arg  
 35 40 45  
 Pro Ser Ala Arg Gln Glu Pro Pro Thr Ala Asn Gly Lys Gly Leu Leu  
 50 55 60  
 Ser Arg Lys Thr Ile Pro Leu Glu Pro Gly Ile Gly Lys Met Ile Ile  
 65 70 75 80  
 Ser Thr Thr Ser Arg Leu  
 85

<210> 2262  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 2262  
 Met Lys Gly Ser Arg Ala Leu Leu Leu Val Ala Leu Thr Leu Phe Cys  
 1 5 10 15  
 Ile Cys Arg Met Ala Thr Gly Glu Asp Asn Asp Glu Phe Phe Met Asp  
 20 25 30  
 Phe Leu Gln Thr Leu Leu Val Gly Thr Pro Glu Glu Leu Tyr Glu Gly  
 35 40 45  
 Thr Leu Gly Lys Tyr Asn Val Asn Glu Asp Ala Lys Ala Ala Met Thr  
 50 55 60  
 Glu Leu Lys Ser Cys Ile Asp Gly Leu Gln Pro Met His Lys Ala Glu  
 65 70 75 80  
 Leu Val Lys Leu Leu Val Gln Val Leu Gly Ser Gln Asp Gly Ala Gly  
 85 90 95  
 Thr Asp Tyr Lys Asp Asp Asp Asp Lys  
 100 105

<210> 2263  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 2263  
 Met Ala Ala Ser Val Cys Ser Gly Leu Leu Gly Pro Arg Val Leu Ser  
 1 5 10 15  
 Trp Ser Arg Glu Leu Pro Cys Ala Trp Arg Ala Leu His Thr Ser Pro  
 20 25 30

Val Cys Ala Lys Asn Arg Ala Ala Arg Val Arg Val Ser Lys Gly Asp  
 35 40 45  
 Lys Pro Val Thr Tyr Glu Glu Ala His Ala Pro His Tyr Ile Ala His  
 50 55 60  
 Arg Lys Gly Trp Leu Ser Leu His Thr Gly Asn Leu Asp Gly Glu Asp  
 65 70 75 80  
 His Ala Ala Glu Arg Thr Val Glu Asp Val Phe Leu Arg Lys Phe Met  
 85 90 95  
 Trp Gly Thr Phe Pro Gly Cys Leu Ala Asp Gln Leu Val Leu Lys Arg  
 100 105 110  
 Arg Gly Asn Gln Leu Glu Ile Cys Ala Val Val Leu Arg Gln Leu Ser  
 115 120 125  
 Pro His Lys Tyr Tyr Phe Leu Val Gly Tyr Ser Glu Thr Leu Leu Ser  
 130 135 140  
 Tyr Phe Tyr Lys Cys Pro Val Arg Leu His Leu Gln Thr Val Pro Ser  
 145 150 155 160  
 Lys Val Val Tyr Lys Tyr Leu  
 165

&lt;210&gt; 2264

&lt;211&gt; 203

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2264

Met Ala Arg Pro Arg Pro Arg Glu Tyr Lys Ala Gly Asp Leu Val Phe  
 1 5 10 15  
 Ala Lys Met Lys Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Glu Leu  
 20 25 30  
 Pro Glu Gly Ala Val Lys Pro Pro Ala Asn Lys Tyr Pro Ile Phe Phe  
 35 40 45  
 Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro  
 50 55 60  
 Tyr Lys Glu Tyr Lys Asp Lys Phe Gly Lys Ser Asn Lys Arg Lys Gly  
 65 70 75 80  
 Phe Asn Glu Gly Leu Trp Glu Ile Glu Asn Asn Pro Gly Val Lys Phe  
 85 90 95  
 Thr Gly Tyr Gln Ala Ile Gln Gln Gln Ser Ser Ser Glu Thr Glu Gly  
 100 105 110  
 Glu Gly Gly Asn Thr Ala Asp Ala Ser Ser Glu Glu Glu Gly Asp Arg  
 115 120 125

Val Glu Glu Asp Gly Lys Gly Lys Arg Lys Asn Glu Lys Ala Gly Ser  
 130 135 140

Lys Arg Lys Lys Ser Tyr Thr Ser Lys Lys Ser Ser Lys Gln Ser Arg  
 145 150 155 160

Lys Ser Pro Gly Asp Glu Asp Asp Lys Asp Cys Lys Glu Glu Glu Asn  
 165 170 175

Lys Ser Ser Ser Glu Gly Gly Asp Ala Gly Asn Asp Thr Arg Asn Thr  
 180 185 190

Thr Ser Asp Leu Gln Lys Thr Ser Glu Gly Thr  
 195 200

<210> 2265  
 <211> 253  
 <212> PRT  
 <213> Homo sapiens

<400> 2265  
 Met Arg Ser Gly Lys Met Ala Pro Lys Pro Gln Ser Arg Cys Thr Ser  
 1 5 10 15

Thr Arg Ser Ala Gly Glu Ala Pro Ser Glu Asn Gln Ser Pro Ser Lys  
 20 25 30

Gly Pro Glu Glu Ala Ser Ser Glu Val Gln Asp Thr Asn Glu Val His  
 35 40 45

Val Pro Gly Asp Gln Asp Glu Pro Gln Thr Leu Gly Lys Lys Gly Ser  
 50 55 60

Lys Asn Asn Ile Ser Val Tyr Met Thr Leu Asn Gln Lys Lys Ser Asp  
 65 70 75 80

Ser Ser Ser Ala Ser Val Cys Ser Ile Asp Ser Thr Asp Asp Leu Lys  
 85 90 95

Ser Ser Asn Ser Glu Cys Ser Ser Ser Glu Ser Phe Asp Phe Pro Pro  
 100 105 110

Gly Ser Met His Ala Pro Ser Thr Ser Ser Thr Ser Ser Ser Lys  
 115 120 125

Glu Glu Lys Lys Leu Ser Asn Ser Leu Lys Met Lys Val Phe Ser Lys  
 130 135 140

Asn Val Ser Lys Cys Val Thr Pro Asp Gly Arg Thr Ile Cys Val Gly  
 145 150 155 160

Asp Ile Val Trp Ala Lys Ile Tyr Gly Phe Pro Trp Trp Pro Ala Arg  
 165 170 175

Ile Leu Thr Ile Thr Val Ser Arg Lys Asp Asn Gly Leu Leu Val Arg  
 180 185 190

Gln Glu Ala Arg Ile Ser Trp Phe Gly Ser Pro Thr Thr Ser Phe Leu  
 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995

195                      200                      205  
 Ala Leu Ser Gln Leu Ser Pro Phe Leu Glu Asn Phe Gln Ser Arg Phe  
 210                      215                      220  
 Asn Lys Lys Arg Lys Gly Leu Tyr Arg Lys Ala Ile Thr Glu Ala Ala  
 225                      230                      235                      240  
 Lys Ala Ala Lys Gln Leu Thr Pro Glu Val Arg Ala Cys  
 245                      250  
  
 <210> 2266  
 <211> 314  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 2266  
 Met Pro His Ala Phe Lys Pro Gly Asp Leu Val Phe Ala Lys Met Lys  
 1                      5                      10                      15  
 Gly Tyr Pro His Trp Pro Ala Arg Ile Asp Asp Ile Ala Asp Gly Ala  
 20                      25                      30  
 Val Lys Pro Pro Pro Asn Lys Tyr Pro Ile Phe Phe Phe Gly Thr His  
 35                      40                      45  
 Glu Thr Ala Phe Leu Gly Pro Lys Asp Leu Phe Pro Tyr Asp Lys Cys  
 50                      55                      60  
 Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe Asn Glu Gly  
 65                      70                      75                      80  
 Leu Trp Glu Ile Gln Asn Asn Pro His Ala Ser Tyr Ser Ala Pro Pro  
 85                      90                      95  
 Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn Pro Ala Asp  
 100                      105                      110  
 Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val Met Ala Val  
 115                      120                      125  
 Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu Ser Asp Ser  
 130                      135                      140  
 Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg Lys Thr Pro  
 145                      150                      155                      160  
 Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala Ser Ser Asp  
 165                      170                      175  
 Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn Ser Glu Ser  
 180                      185                      190  
 Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr Pro Glu Lys  
 195                      200                      205  
 Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly Gly Arg Lys  
 210                      215                      220

Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys Ala Asp Ser  
 225 230 235 240  
 Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser Ala Ser Ser  
 245 250 255  
 Ser Ser Ser Ser Ser Ser Ser Ser Asp Ser Asp Val Ser Val Lys Lys  
 260 265 270  
 Pro Pro Arg Gly Arg Lys Pro Thr Glu Lys Pro Leu Pro Lys Pro Arg  
 275 280 285  
 Gly Arg Lys Pro Lys Pro Glu Arg Pro Pro Ser Ser Ser Ser Asp  
 290 295 300  
 Ser Asp Ser Asp Glu Val Asp Arg Ile Thr  
 305 310

&lt;210&gt; 2267

&lt;211&gt; 281

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 2267

Met Gly Ser Arg Gly Gln Gly Leu Leu Leu Ala Tyr Cys Leu Leu Leu  
 1 5 10 15  
 Ala Phe Ala Ser Gly Leu Val Leu Ser Arg Val Pro His Val Gln Gly  
 20 25 30  
 Glu Gln Gln Glu Trp Glu Gly Thr Glu Glu Leu Pro Ser Pro Pro Asp  
 35 40 45  
 His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr Arg Pro Ser Gln  
 50 55 60  
 Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg Cys Cys Asp Pro Gly  
 65 70 75 80  
 Thr Ser Met Tyr Pro Ala Thr Ala Val Pro Gln Ile Asn Ile Thr Ile  
 85 90 95  
 Leu Lys Gly Glu Lys Gly Asp Arg Gly Asp Arg Gly Leu Gln Gly Lys  
 100 105 110  
 Tyr Gly Lys Thr Gly Ser Ala Gly Ala Arg Gly His Thr Gly Pro Lys  
 115 120 125  
 Gly Gln Lys Gly Ser Met Gly Ala Pro Gly Glu Arg Cys Lys Ser His  
 130 135 140  
 Tyr Ala Ala Phe Ser Val Gly Arg Lys Lys Pro Met His Ser Asn His  
 145 150 155 160  
 Tyr Tyr Gln Thr Val Ile Phe Asp Thr Glu Phe Val Asn Leu Tyr Asp  
 165 170 175



His Phe Asn Met Phe Thr Gly Lys Phe Tyr Cys Tyr Val Pro Gly Leu  
180 185 190

Tyr Phe Phe Ser Leu Asn Val His Thr Trp Asn Gln Lys Glu Thr Tyr  
195 200 205

Leu His Ile Met Lys Asn Glu Glu Glu Val Ala Ile Leu Phe Ala Gln  
210 215 220

Val Gly Asp Arg Ser Ile Met Gln Ser Gln Ser Leu Met Leu Glu Leu  
225 230 235 240

Arg Glu Gln Asp Gln Val Trp Val Arg Leu Tyr Lys Gly Glu Arg Glu  
245 250 255

Asn Ala Ile Phe Ser Glu Glu Leu Asp Thr Tyr Ile Thr Phe Ser Gly  
260 265 270

Tyr Leu Val Lys His Ala Thr Glu Pro  
275 280

# **INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL**

(PCT Rule 13bis)

**A.** The indications made below relate to the deposited microorganism or other biological material referred to in the description on page 243, line 24.

**B. IDENTIFICATION OF DEPOSIT**

Further deposits are identified on an additional sheet ☒

Name of depositary institution: American Type Culture Collection

Address of depositary institution (including postal code and country)

10801 University Boulevard  
Manassas, Virginia 20110-2209  
United States of America

Date of deposit

11 April 2001

Accession Number

PTA-3276

**C. ADDITIONAL INDICATIONS** (leave blank if not applicable)

This information is continued on an additional sheet ☐

**D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE** (if the indications are not for all designated States)

Europe

In respect of those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which the application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC)

Continued on additional sheets

**E. SEPARATE FURNISHING OF INDICATIONS** (leave blank if not applicable)

The indications listed below will be submitted to the International Bureau later (specify the general nature of the indications e.g. "Accession Number of Deposit")

	For receiving Office use only			For International Bureau use only	
<input type="checkbox"/> This sheet was received with the international application			<input checked="" type="checkbox"/> This sheet was received by the International Bureau on <b>15 MAY 2001</b> (15.05.01)		
Authorized officer			Authorized officer <i>P. Gicard</i>		

**ATCC Deposit No.: PTA-3276**

**CANADA**

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

**NORWAY**

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

**AUSTRALIA**

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

**FINLAND**

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

**UNITED KINGDOM**

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

**ATCC Deposit No.: PTA-3276**

### **DENMARK**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

### **SWEDEN**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

### **NETHERLANDS**

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

# **INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL**

(PCT Rule 13bis)

**A.** The indications made below relate to the deposited microorganism or other biological material referred to in the description on page 243, line 24.

**B. IDENTIFICATION OF DEPOSIT**

Further deposits are identified on an additional sheet ☒

Name of depositary institution: American Type Culture Collection

Address of depositary institution (including postal code and country)

10801 University Boulevard  
Manassas, Virginia 20110-2209  
United States of America

Date of deposit

11 April 2001

Accession Number

PTA-3277

**C. ADDITIONAL INDICATIONS** (leave blank if not applicable)

This information is continued on an additional sheet ☐

**D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE** (if the indications are not for all designated States)

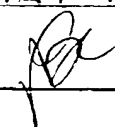
Europe

In respect of those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which the application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC)

Continued on additional sheets

**E. SEPARATE FURNISHING OF INDICATIONS** (leave blank if not applicable)

The indications listed below will be submitted to the international Bureau later (specify the general nature of the indications e.g. "Accession Number of Deposit")

	For receiving Office use only			For International Bureau use only	
<input type="checkbox"/> This sheet was received with the international application			<input checked="" type="checkbox"/> This sheet was received by the International Bureau on <div style="text-align: center;">15 MAY 2001</div>		
Authorized officer			Authorized officer 		

**ATCC Deposit No.: PTA-3277**

**CANADA**

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

**NORWAY**

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

**AUSTRALIA**

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

**FINLAND**

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

**UNITED KINGDOM**

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

**ATCC Deposit No.: PTA-3277**

#### **DENMARK**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

#### **SWEDEN**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

#### **NETHERLANDS**

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

# **INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL**

(PCT Rule 13bis)

**A.** The indications made below relate to the deposited microorganism or other biological material referred to in the description on page 243, line 24.

**B. IDENTIFICATION OF DEPOSIT**

Further deposits are identified on an additional sheet ☒

Name of depositary institution: American Type Culture Collection

Address of depositary institution (including postal code and country)

10801 University Boulevard  
Manassas, Virginia 20110-2209  
United States of America

Date of deposit

11 April 2001

Accession Number

PTA-3278

**C. ADDITIONAL INDICATIONS** (leave blank if not applicable)

This information is continued on an additional sheet ☐

**D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE** (if the indications are not for all designated States)

Europe

In respect of those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which the application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).

Continued on additional sheets

**E. SEPARATE FURNISHING OF INDICATIONS** (leave blank if not applicable)

The indications listed below will be submitted to the international Bureau later (specify the general nature of the indications e.g., "Accession Number of Deposit")

	For receiving Office use only			For International Bureau use only	
<input type="checkbox"/> This sheet was received with the international application			<input checked="" type="checkbox"/> This sheet was received by the International Bureau on:		
			13 MAY 2001 (15.05.01)		
Authorized officer			Authorized officer		



**ATCC Deposit No.: PTA-3278**

**CANADA**

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

**NORWAY**

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

**AUSTRALIA**

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

**FINLAND**

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

**UNITED KINGDOM**

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

**ATCC Deposit No.: PTA-3278**

### **DENMARK**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

### **SWEDEN**

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex Z of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

### **NETHERLANDS**

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

# **INDICATIONS RELATING TO A DEPOSITED MICROORGANISM OR OTHER BIOLOGICAL MATERIAL**

(PCT Rule 13bis)

**A.** The indications made below relate to the deposited microorganism or other biological material referred to in the description on page 243, line 24

**B. IDENTIFICATION OF DEPOSIT**

Further deposits are identified on an additional sheet ☒

Name of depositary institution: American Type Culture Collection

Address of depositary institution (including postal code and country)

10801 University Boulevard  
Manassas, Virginia 20110-2209  
United States of America

Date of deposit

11 April 2001

Accession Number

PTA-3279

**C. ADDITIONAL INDICATIONS** (leave blank if not applicable)

This information is continued on an additional sheet ☐

**D. DESIGNATED STATES FOR WHICH INDICATIONS ARE MADE** (if the indications are not for all designated States)

Europe

In respect of those designations in which a European Patent is sought a sample of the deposited microorganism will be made available until the publication of the mention of the grant of the European patent or until the date on which the application has been refused or withdrawn or is deemed to be withdrawn, only by the issue of such a sample to an expert nominated by the person requesting the sample (Rule 28(4) EPC).

Continued on additional sheets

**E. SEPARATE FURNISHING OF INDICATIONS** (leave blank if not applicable)

The indications listed below will be submitted to the International Bureau later (specify the general nature of the indications e.g., "Accession Number of Deposit")

	For receiving Office use only			For International Bureau use only
<input type="checkbox"/> This sheet was received with the international application			<input checked="" type="checkbox"/> This sheet was received by the International Bureau on: <div style="text-align: center;">13 APR 2001 (15.05.01)</div>	
Authorized officer			Authorized officer	

**ATCC Deposit No.: PTA-3279**

**CANADA**

The applicant requests that, until either a Canadian patent has been issued on the basis of an application or the application has been refused, or is abandoned and no longer subject to reinstatement, or is withdrawn, the Commissioner of Patents only authorizes the furnishing of a sample of the deposited biological material referred to in the application to an independent expert nominated by the Commissioner, the applicant must, by a written statement, inform the International Bureau accordingly before completion of technical preparations for publication of the international application.

**NORWAY**

The applicant hereby requests that the application has been laid open to public inspection (by the Norwegian Patent Office), or has been finally decided upon by the Norwegian Patent Office without having been laid open inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Norwegian Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Norwegian Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on the list of recognized experts drawn up by the Norwegian Patent Office or any person approved by the applicant in the individual case.

**AUSTRALIA**

The applicant hereby gives notice that the furnishing of a sample of a microorganism shall only be effected prior to the grant of a patent, or prior to the lapsing, refusal or withdrawal of the application, to a person who is a skilled addressee without an interest in the invention (Regulation 3.25(3) of the Australian Patents Regulations).

**FINLAND**

The applicant hereby requests that, until the application has been laid open to public inspection (by the National Board of Patents and Regulations), or has been finally decided upon by the National Board of Patents and Registration without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art.

**UNITED KINGDOM**

The applicant hereby requests that the furnishing of a sample of a microorganism shall only be made available to an expert. The request to this effect must be filed by the applicant with the International Bureau before the completion of the technical preparations for the international publication of the application.

ATCC Deposit No.: PTA-3279

## DENMARK

The applicant hereby requests that, until the application has been laid open to public inspection (by the Danish Patent Office), or has been finally decided upon by the Danish Patent office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the Danish Patent Office not later than at the time when the application is made available to the public under Sections 22 and 33(3) of the Danish Patents Act. If such a request has been filed by the applicant, any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Danish Patent Office or any person by the applicant in the individual case.

## SWEDEN

The applicant hereby requests that, until the application has been laid open to public inspection (by the Swedish Patent Office), or has been finally decided upon by the Swedish Patent Office without having been laid open to public inspection, the furnishing of a sample shall only be effected to an expert in the art. The request to this effect shall be filed by the applicant with the International Bureau before the expiration of 16 months from the priority date (preferably on the Form PCT/RO/134 reproduced in annex 2 of Volume I of the PCT Applicant's Guide). If such a request has been filed by the applicant any request made by a third party for the furnishing of a sample shall indicate the expert to be used. That expert may be any person entered on a list of recognized experts drawn up by the Swedish Patent Office or any person approved by a applicant in the individual case.

## NETHERLANDS

The applicant hereby requests that until the date of a grant of a Netherlands patent or until the date on which the application is refused or withdrawn or lapsed, the microorganism shall be made available as provided in the 31F(1) of the Patent Rules only by the issue of a sample to an expert. The request to this effect must be furnished by the applicant with the Netherlands Industrial Property Office before the date on which the application is made available to the public under Section 22C or Section 25 of the Patents Act of the Kingdom of the Netherlands, whichever of the two dates occurs earlier.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/11988

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 21/04  
US CL : 536/23.4, 23.5

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.4, 23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
WEST, DIALOG

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 97/34997 A1 (HUMAN GENOME SCIENCES, INC.) 25 September 1997, see the whole document.	1-9, 15-19
Y	WO 97/24445 A1 (DELTA BIOTECHNOLOGY LIMITED) 10 July 1997, see the whole document.	1-9, 15-19
Y	EP 0 322 094 A1 (DELTA BIOTECHNOLOGY LIMITED) 28 June 1989, see Figure 1.	1-9, 15-19

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"J" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

Date of mailing of the international search report

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Teresa Strzelecka

Telephone No. (703) 308-0196

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/11988

## Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claim Nos.: 10-14, 20-32, 34-36  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:  
Please See Continuation Sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1-9, 15-19, protein X HETFO52

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/11988

### BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

1. Groups 1-6918, claims 1-9 and 15-19 (all in part), drawn to an albumin fusion protein comprising a Therapeutic protein:X and albumin.

If Group 1 is elected, this correlates to protein identified by X=HETFO52 with a preferred indication Y: neural/sensory, reproductive.

If Group 2 is elected, this correlates to protein identified by X=HETEZ10 with a preferred indication Y: cancer.

5. Groups 6919-13836, claim 33 (in part), drawn to a method of extending the shelf life of a Therapeutic protein:X.

If Group 6919 is elected, this correlates to protein identified by X=HETFO52 with a preferred indication Y: neural/sensory, reproductive.

If Group 6920 is elected, this correlates to protein identified by X=HETEZ10 with a preferred indication Y: cancer.

The inventions listed as Groups 1-13836 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The special technical feature is an albumin fusion protein. Balance et al. (WO 90/13653) teach albumin fusion proteins comprising human fibronectin, CD4, platelet derived growth factor, transforming growth factor beta, human von Willebrand factor or alpha-1-antitrypsin.